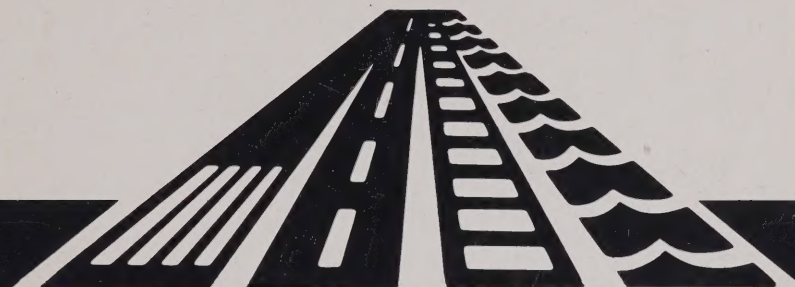


CAI
T 830
-78R211

Government
Publications

Report of the Commission of Inquiry into Newfoundland Transportation

Volume 1, July 1978





Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

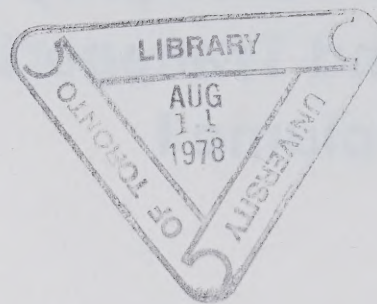
<https://archive.org/details/39261212060159>

CAI
T 830
-78R211
v.1

Report of the Commission of Inquiry into Newfoundland Transportation Volume I

July 1978

St. John's Newfoundland



© Minister of Supply and Services Canada 1978

Available by mail from

Printing and Publishing
Supply and Services Canada
Ottawa, Canada K1A 0S9

or through your bookseller.

Catalogue No. T22-37/1978
ISBN 0-660-01797-0

Canada: \$6.75
Other Countries: \$8.10

Price subject to change without notice

Table of Contents

| | | | |
|---|----|--|-----|
| Preface | i | •Air Passenger | 92 |
| Introduction | 1 | •Air Freight | 94 |
| Section 1 The Past | | •Trucking Industry | 95 |
| <i>Chapter I Historical Introduction</i> | 11 | •Bus | 95 |
| Historical Background | 11 | •Gulf Ferry Service | 96 |
| The Special Case for Newfoundland | 26 | <i>Chapter V An Evaluation of the Newfoundland Transportation System</i> | 103 |
| <i>Chapter II The Constitutional Question</i> | 29 | Introduction | 103 |
| Section 2 The Present | | Assessment of CN Rail Operations | 103 |
| <i>Chapter III The Newfoundland Transportation System Inventory of Existing Facilities and Services</i> | 39 | Assessment of Highway Infrastructure | 110 |
| Introduction | 39 | Assessment of Trucking Industry | 119 |
| Marine (Gulf, North Sydney, Port aux Basques and Argentina) | 39 | Assessment of Trans Island Bus Service | 123 |
| Coastal Services | 44 | Assessment of Gulf Ferry Operation | 127 |
| Intra-Island Ferry Service | 44 | Assessment of Direct Water Services | 134 |
| Direct Steamship Service to Newfoundland and Labrador | 48 | Assessment of Coastal Boat Operation | 137 |
| Highway Infrastructure | 48 | Assessment of Air Service | 140 |
| Trucking Services To and Within Newfoundland | 49 | Total System Evaluation | 142 |
| Bus and Taxi Transport | 52 | Section 3 The Future | |
| Ports | 56 | <i>Chapter VI Future Transport Needs</i> | 153 |
| Air Transportation | 65 | Introduction | 153 |
| Rail Freight and Express Service in Newfoundland | 69 | A Transport Need Analysis For the Industrial Sector | 153 |
| <i>Chapter IV Utilization of Present Transport Services</i> | 79 | 1. The Fishing Industry | 154 |
| Introduction | 79 | 2. The Mining Industry | 158 |
| Freight Movements | 79 | 3. The Forest Industry | 159 |
| Traffic Zone System | 82 | 4. The Electric Power Industry | 162 |
| Mode Utilization | | 5. The Construction Industry | 162 |
| •Sea | 82 | 6. Non-Resource Based Manufacturing Industry | 163 |
| •Rail | 87 | 7. The Agricultural Industry | 163 |
| | | 8. The Tourist Industry | 163 |
| | | Forecast of General Freight Traffic to Newfoundland | 165 |
| | | Gulf Ferry Requirements | 166 |

| | | | |
|---|-----|--|-----|
| Some Conclusions | 173 | Section 5 Conclusions and Recommendations | |
| <i>Chapter VII Towards A Transportation Policy for Newfoundland</i> | 175 | <i>Chapter XV General Recommendations</i> | 229 |
| Constraints Imposed by the Present System | 179 | General | 229 |
| Principles Which Should Guide Change | 180 | The Concept of User Pay for Newfoundland | 229 |
| A Glimpse at the Future | 181 | The Question of Subsidies | 229 |
| General Overview | 182 | Federal-Provincial Co-operation | 230 |
| Section 4 Key Issues in Newfoundland Transportation | | Transportation in Labrador | 231 |
| <i>Chapter VIII The Future of the Railway in Newfoundland</i> | 187 | The Use of Hovercraft in Newfoundland | 231 |
| <i>Chapter IX The Concept of User Pay for Newfoundland</i> | 195 | Dealing With Social Consequences of Change | 231 |
| <i>Chapter X The Question of Subsidies</i> | 197 | <i>Chapter XVI Mode and Service Recommendations</i> | 233 |
| <i>Chapter XI Federal-Provincial Co-operation</i> | 203 | The Rail System | 233 |
| Continuing Research | 206 | The Road System | 234 |
| Local Autonomy and Responsibility | 207 | Highway Freight Services | 239 |
| <i>Chapter XII The Use of Hovercraft in Newfoundland</i> | 209 | Public Bus Transportation | 243 |
| <i>Chapter XIII Transportation in Labrador</i> | 215 | Gulf Services | 248 |
| <i>Chapter XIV Dealing with the Social Consequences of Change</i> | 217 | Direct Water Shipping Services | 253 |
| | | Coastal Service | 256 |
| | | Air Services | 260 |
| | | Section 6 Minority Report of Commissioner E. E. Thoms | |
| | | <i>Chapter XVII Minority Report of Esau E. Thoms, Commissioner</i> | 267 |
| | | The Commission | 271 |
| | | Glossary | 273 |

Table of Maps and Figures

General Maps

Newfoundland and the Maritime Provinces
Place Names in Newfoundland
Place Names in Labrador
Geographic Features of Newfoundland

| Figure | Title | |
|--------|---|-----|
| 3-1 | Employment in Trucking Industry by Traffic Zone | 53 |
| 3-2 | Regional/National System | 58 |
| 3-3 | Newfoundland Air Strips | 60 |
| 3-4 | Newfoundland Water Aerodromes | 61 |
| 3-5 | Local Service/General Aviation System | 62 |
| 3-6 | EPA Air Routes | 64 |
| 3-7 | EPA Route Structure | 66 |
| 3-8 | Quebecair Route Structure | 67 |
| 3-9 | Labrador Airways Routes 1976 | 68 |
| 4-1 | Newfoundland Intra-Provincial Freight | 80 |
| 4-2 | Incoming Freight to Newfoundland | 81 |
| 4-3 | Outbound Freight from Newfoundland | 83 |
| 4-4 | Newfoundland Traffic Zones | 84 |
| 4-5 | Origins of Sea Freight Incoming to Newfoundland by Percentage | 85 |
| 4-6 | Destination of Sea Freight Incoming to Newfoundland by Percentage | 85 |
| 4-7 | Newfoundland Origins of Intra Sea Freight, by Percentage | 86 |
| 4-8 | Newfoundland Destinations of Intra Sea Freight, by Percentage | 86 |
| 4-9 | Newfoundland Origins of Outbound Sea Freight—1976 | 88 |
| 4-10 | Origins of Rail Freight Incoming to Newfoundland by Percentage | 88 |
| 4-11 | Origins, Commodities and Tonnages of Incoming Rail Freight—1976 | 89 |
| 4-12 | Destination of Inbound Rail Freight to Newfoundland by Percentage 1976 | 91 |
| 4-13 | Major Origins of Intra-Rail Freight | 91 |
| 4-14 | Destination of Intra-Rail Freight in Newfoundland by Percentage | 92 |
| 4-15 | Major Origins of Out-bound Rail Freight 1976 | 93 |
| 4-16 | 1976 CN Bus Passenger Trips in Nfld. | 97 |
| 4-17 | Cumulative Frequency Curve | 98 |
| 4-18 | CN Road cruiser Trip Length Diagram November 1-30, 1976 Westbound | 99 |
| 4-19 | CN Bus Passengers 1976 | 100 |
| 5-1 | Reduced Speed Zones T.C.H. | 112 |
| 5-2 | Passing Opportunities on Sections of T.C.H. | 113 |
| 5-3 | Substandard Intersections on Trans Canada Highway | 114 |
| 5-4 | Present Performance Rating of Sections of Trans Canada Highway in Newfoundland | 116 |
| 5-5 | Rail Freight Handled by Gulf Ferries | 130 |
| 5-6 | Passenger Related Vehicles Handled by Gulf Ferries | 131 |
| 5-7 | Subsidy Requirements of Gulf Ferries | 132 |
| 5-8 | Subsidized Water Services 1969-70 to 1976-77 | 136 |
| 5-9 | CNR Newfoundland Coastal Services Federal Government Direct Transportation Assistance | 141 |
| 6-1 | Location of Newfoundland's Fresh Frozen Processing Plants, 1975 | 155 |
| 6-2 | Location of Newfoundland's Saltfish and Other Processing Plants, 1975 | 156 |
| 6-3 | Location of Newfoundland's Timber Resources, 1971 | 161 |
| 6-4 | General Freight Traffic to Nfld. | 166 |
| 6-5 | Truck Auto Equivalents—July 1977 | 169 |
| 6-6 | Gulf Ferry Requirements | 170 |
| 6-7 | Gulf Ferry Requirements Condition 2 | 171 |
| 6-8 | Gulf Ferry Requirements Condition 3 | 172 |

Photography Acknowledgements

The photography appearing in this report was made possible through the co-operation of the following organizations and photographers:

1. Air Canada, Halifax
2. British Hovercraft Corporation Ltd.
3. CN Marine, St. John's
4. CNR, St. John's
5. CN Visual Communications, Montreal
6. Chimo Shipping Ltd., St. John's
7. Corner Brook Economic Development Corporation Ltd.
8. Clarke Transportation Canada Ltd., Montreal
9. R.G. Crocker Professional Photography, St. John's
10. Dept. of Regional Economic Expansion, St. John's
11. Dept. of Transportation & Communications, Government of Newfoundland and Labrador, St. John's
12. D. Driscoll, Commission of Inquiry into Newfoundland Transportation
13. Eastern Provincial Airways, Gander
14. Gander Aviation Ltd., Gander
15. Ben Hansen, St. John's
16. Lawrence and Laura Jackson, Forteau, Labrador
17. B. K. Mills, Commission of Inquiry into Newfoundland Transportation
18. Memorial University of Newfoundland Extension Service, St. John's
19. Newfoundland Container Lines Ltd., St. John's
20. Newfoundland Museum, St. John's
21. M. T. Schulstad, Corner Brook
22. Transport Canada, Ottawa

Photographic Production:

Northlight Photographic, St. John's
Ted Mills Studio Ltd., St. John's

Preface

Throughout the course of our public hearings and in the publicity which accompanied them, we heard and read many and various complaints, accusations, suggestions and recommendations. Unfortunately, there was little in common among the various submissions, and no consensus emerged concerning the problems of Newfoundland transportation or their solutions. Many submissions presented views and recommendations which were directly opposed to those presented by other individuals and groups.

On only one single theme did complete harmony and unanimity appear, and that concerned the hopelessness of our task. *Every submission* and *every comment* recognized, explicitly or implicitly, that our work would be difficult and challenging. *No one* envied our task. And our work has, indeed, been difficult and our task challenging, although the effort has not been without its satisfactions nor its humorous moments.

Let us examine more closely the task which we were asked to carry out. We were established as a Commission of Inquiry, which was to advise the Federal Government, through the Ministry of Transport (MOT), concerning the problems of Newfoundland transportation and to make suggestions concerning their solutions.

We were an advisory commission, not an investigatory commission.

We have, therefore, not carried out a trial nor have we reached judicial conclusions. We have not, and many will undoubtedly be disappointed by this, attempted to affix guilt or blame, nor have we provided a conclusive answer to such questions as "How can a stove be lost between Lewisporte and St. Anthony?" We did not do so in part because it is

extremely difficult and time consuming to produce a complete and absolute answer to such questions. More importantly, however, we did not attempt to answer such questions because, although they are intriguing, seeking the answers to specific questions was not our most important responsibility. Rather, we considered our most important tasks to be (1) the provision of a complete description of the present transportation situation in Newfoundland; (2) the presentation of an analysis of Newfoundland's future transportation needs; (3) the development of a more efficient and effective transportation network for Newfoundland; and (4) the setting out of *guidelines* and *policies* which will chart the future development of transportation services in Newfoundland. That is, we are *not* primarily concerned with the past; we *are* vitally concerned with the present and the future.

Our task, therefore, has been the preparation of a master plan which would guide the development of transportation in Newfoundland for the next twenty years. We have not completely succeeded in this, but we have, we think, provided the basic essentials for such a plan. That we have not succeeded completely is not surprising, considering the complexity of the task, the relatively short amount of time we were given and the magnitude of the difficulties, some of which were entirely unexpected, which we encountered. This report, therefore, despite our efforts to attain accuracy and comprehensiveness, may be expected to have weaknesses and flaws. These will undoubtedly be pointed out to us in due course.

Three particular points require some explanation:

1. Throughout the entire course of our community visitations and public hearings, many individuals and groups submitted suggestions and recommendations

to us concerning matters which are completely under the jurisdiction of the Provincial Government. Pavement and improvement programmes for local roads was, by far, the most common instance. We have explained that our responsibility is to report to the Federal Minister of Transport and, whilst we have not responded to each of these requests, because this is primarily an area of provincial responsibility, we have recommended a suggested basis for priority which the Provincial Government could consider in its implementation of a sound road programme for the Province.

2. The figures concerning rail traffic and costs were provided to us by Canadian National (CN) or by the Ministry of Transport. We did not have a team of auditors prepare an independent audit. This decision was made deliberately and arrived at for the following reasons:

a) We were advised that a team of independent auditors would take at least a year to go back to the original data and redo the necessary calculations. Therefore, we did not have sufficient time to carry out this project even if we had wanted to do so.

b) The figures which we obtained from CN were, in most instances, checked or prepared independently by the Ministry of Transport. We were not able to find any errors in the figures as a result of our checking, and we did not find any discrepancies between figures provided by CN and those provided by the Ministry of Transport. Furthermore, the figures give a comprehensive and coherent picture with no internal inconsistencies so that there is no reason to suspect that the figures are inaccurate or that the picture which they present is misleading.

c) Even if independent auditors were hired, and if they made a completely fresh start to reassemble the raw data and redo all of the calculations, the raw data would have to come from CN files. Thus, no matter how far back you go, it is necessary at some stage to trust the honesty of CN officials and the accuracy of their figures.

3. The report will appear to many to be inaccurate because it does not conform to many of the widely-held beliefs about transportation in Newfoundland. However, many of these widely-held beliefs are actually misconceptions and distortions of the truth which have been repeated so often that many people in Newfoundland believe them to be true. For example, it is often said that tractor trailers coming to Newfoundland are tearing up the roads and that if this traffic were put back on the railway where it belongs, our problems with the Trans Canada Highway would disappear. In fact, the total amount of traffic coming yearly into Newfoundland and across the Island by truck is barely 300,000 tons. Intra-Island and local traffic, which would not likely travel by railway in any case, is over 8,000,000 tons per year. Thus, far more

traffic using the highway is local rather than inter-Island traffic, and despite the fact that most of the inter-Island traffic comes *via* large trailer trucks, the total impact of the local traffic is certainly greater than that of inter-Island traffic.

We have encountered dozens of erroneous but widely-held beliefs in the course of our hearings and research. We do not expect that our report will correct this situation immediately or automatically. We only ask that readers of this report keep an open mind because many of their cherished beliefs about transportation in Newfoundland may be erroneous.

Despite the difficulties which we have encountered, and despite the limitations imposed on us by the magnitude of the problem, and the limited time we were given to complete our report, we feel that our efforts have been fruitful. We think that our analysis of the Newfoundland transportation situation is reasonably accurate and comprehensive and that it will be vastly improved if our recommendations are implemented.

There were three ways in which we could have made recommendations concerning transportation needs of the Province. We could have done so on the basis that, where the Federal Government has an obligation to provide a service, it should continue to provide it regardless of the cost. Secondly, we could have made recommendations which would have resulted in considerable savings to the federal treasury, but the money saved would not necessarily be spent in Newfoundland. The third possibility, and the one which we have adopted as our philosophy, was to consider how the same amount of money could be used more effectively within Newfoundland to provide maximum benefits to the Province and to develop the best possible transportation system.

We do not expect that our report will meet with universal acclaim. We know our methods, our evaluations, our conclusions and our recommendations will be criticized by individuals and groups. We expect that much healthy discussion will be generated.

The second volume of the Commission's report will be prepared and presented in approximately six months. That report will contain, in addition to further elaboration of important solutions, the report's conclusions and recommendations based upon specific research projects which will be completed during the summer.

The Commission could not have progressed so rapidly in its work and could not have completed as much as it has if it had not received the co-operation which it did. All who were asked to help us at the Ministry of Transport did so with enthusiasm, competence and conscientiousness. In addition to providing all of the information which we asked, fully and without hesitation, they went out of their way to suggest information, procedures which and individuals who

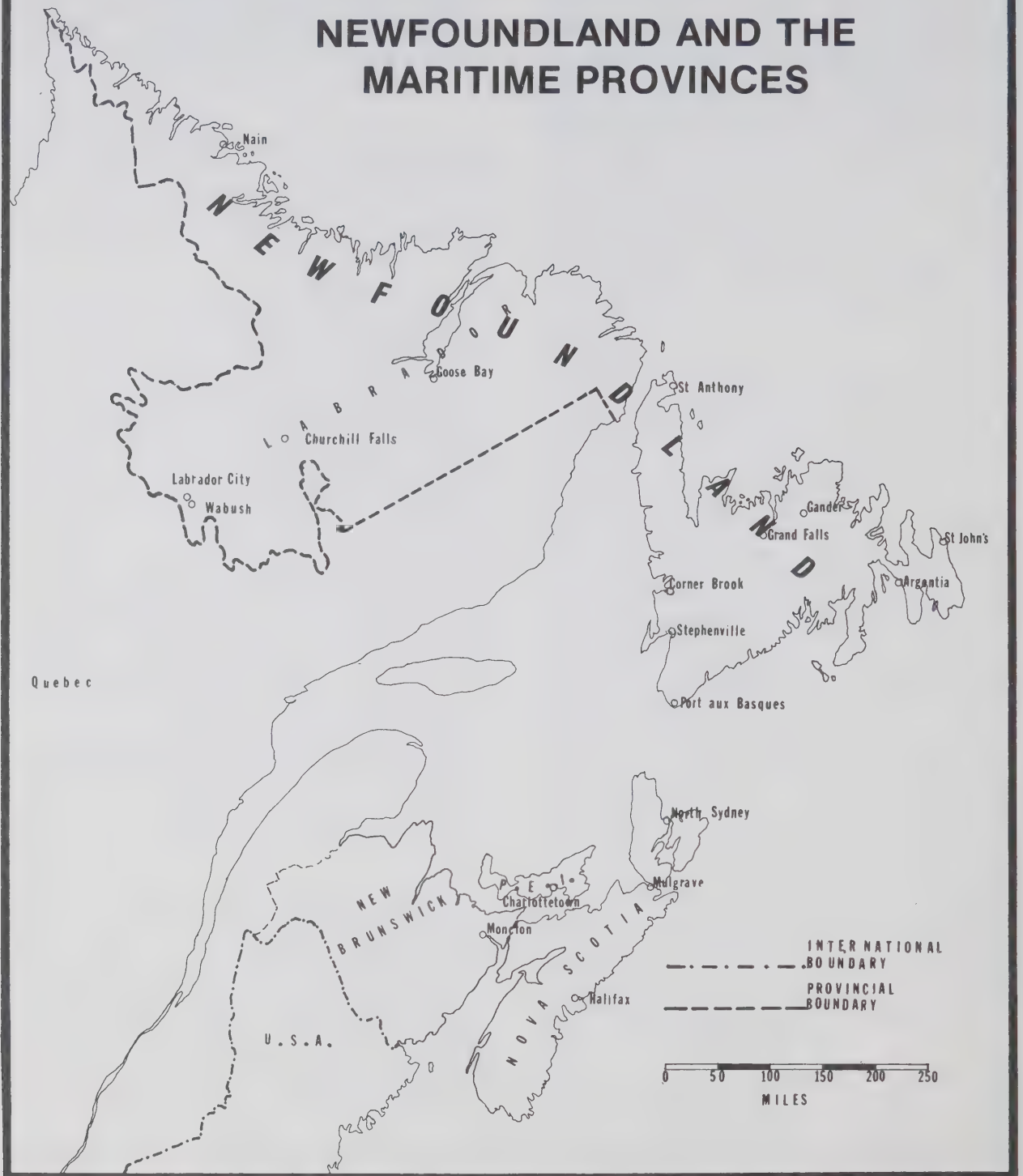
might be of help to us. The same is true of all individuals who worked with us from the Canadian Transport Commission and from CN. We also found that individuals from the various transportation companies or unions from whom we asked information or help were invariably courteous, informative and helpful. It is a pleasure for us to be able to make this public acknowledgement of our gratitude to all of those who helped us so much during the past year.

We as Commissioners are also grateful to our staff who worked so hard and so effectively during the past year. We shall single no one out for special praise

because everyone made a major contribution. We should note in passing that the group that came together at the beginning is still together. There have been additions, but no subtractions. No one has left voluntarily or otherwise, and that tells a story in itself—especially when the hectic pace and long working days which characterized much of the Commission's activities are considered. We very much appreciate all of the help which we have received.

Arthur M. Sullivan
J. Burford Ploughman
Esau E. Thoms

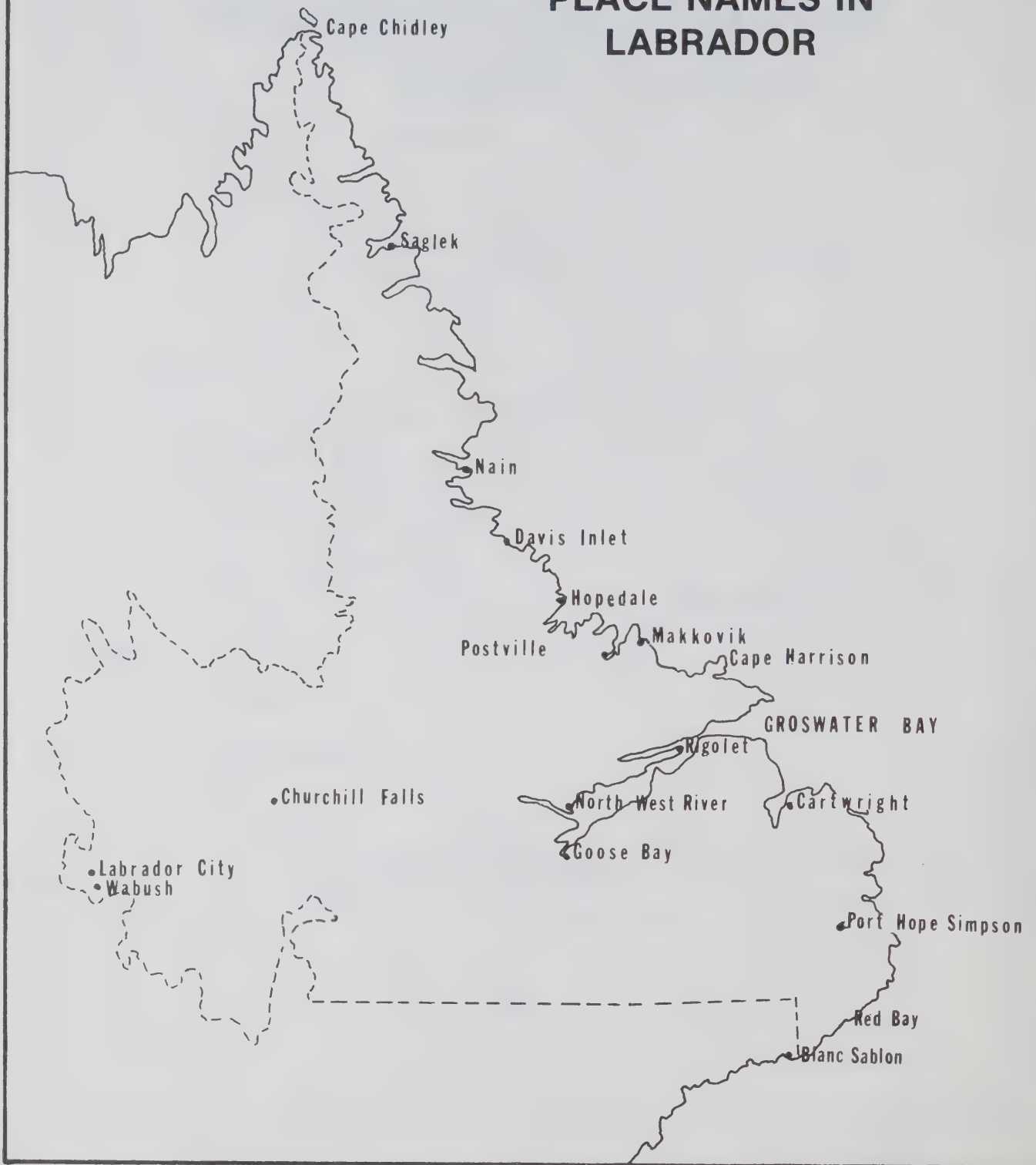
NEWFOUNDLAND AND THE MARITIME PROVINCES



PLACE NAMES IN NEWFOUNDLAND



PLACE NAMES IN LABRADOR



GEOGRAPHIC FEATURES OF NEWFOUNDLAND

LABRADOR



Introduction

Appointment of the Commission

On March 28, 1977, it was announced by the Federal Minister of Transport, the Honourable Otto Lang, that this Commission of Inquiry had been established to examine transportation services in Newfoundland and Labrador.

It was desired that the Commission inquire into existing transportation services to determine whether they meet generally acceptable Canadian norms, and where appropriate, recommend changes to meet current and future needs. The Commission is to report its findings and recommendations to the Minister of Transport.

The Minister noted that one of the essential elements in the conduct of the Inquiry would be the high degree of public participation through the public hearings to be held. The Minister stressed that the Commission should evaluate the factors that influence transportation in Newfoundland and Labrador in terms of national, provincial, social and economic goals. He has charged the Commission with developing an integrated plan for transportation in the Province.

The Federal Government consulted with the Newfoundland Government on the terms of reference and composition of the Commission, which was established under Part I of The Inquiries Act, by Order in Council P.C. 1977-816, March 24, 1977.

TO ALL TO WHOM these Presents shall come or whom the same may in anyway concern,

GREETING:

WHEREAS pursuant to the provisions of Part I of The Inquiries Act, chapter I-13 of The Revised Statutes of Canada, 1970, His Excellency the Governor General in Council, by Order in Council P.C. 1977-816 of the twenty-fourth day of March in the year of Our Lord one thousand nine hundred and seventy-seven has authorized the appointment of Our Commissioners therein and hereinafter named to inquire into and report upon all aspects of transportation and transportation services for Newfoundland, including services for goods and people, and to identify the appropriate levels of transportation, including choice of modes, necessary to meet the future transportation needs of Newfoundland and its people in an efficient and cost effective manner and, without limiting the generality of the foregoing, to inquire into and report upon those items enumerated 1 to 9, inclusive, of the Terms of Reference annexed to the said Order, and has conferred certain rights, powers and privileges upon Our said Commissioners as will by reference to the said Order more fully appear.

NOW KNOW YOU that, by and with the advice of Our Privy Council for Canada, We do by these Presents nominate, constitute and appoint Dr. Arthur Sullivan, of the City of Corner Brook, Esau Thoms, Esquire, of the Town of Freshwater, P.B., and Burford Ploughman, Esquire, of the City of St. John's, all in the Province of Newfoundland, to be Our Commissioners to conduct such inquiry.

TO HAVE, HOLD, exercise and enjoy the said office, place and trust unto the said Dr. Arthur Sullivan, Esau Thoms and Burford Ploughman, together

with the rights, powers, privileges and emoluments unto the said office, place and trust of right and by law appertaining during Our Pleasure.

AND WE DO hereby authorize Our said Commissioners to adopt such procedures and methods as they may, from time to time, deem expedient for the proper conduct of the inquiry and to sit at such times and at such places in Newfoundland or elsewhere in Canada as they may determine appropriate to their tasks.

AND WE DO further authorize Our said Commissioners to engage the services of such staff and technical advisers as they may require and also the services of counsel to aid and assist in the inquiry at rates of remuneration and reimbursement as may be approved by the Minister of Transport.

AND WE DO further authorize the Minister of Transport to designate such officers as may be necessary to aid and assist Our said Commissioners in the inquiry.

AND WE DO hereby require and direct Our said Commissioners to report to the Governor in Council through the Minister of Transport with all reasonable despatch their findings and recommendations, together with support papers and reports, no later than December 31st, 1977, or such later date as the Minister may approve.

AND WE DO hereby designate Dr. Arthur Sullivan, of the City of Corner Brook, in the Province of Newfoundland, to be Chief Commissioner for the purposes of the said inquiry.

IN TESTIMONY WHEREOF, We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

WITNESS: Our Right Trusty and Well-beloved Jules Léger, Chancellor and Principal Companion of Our Order of Canada, Chancellor and Commander of Our Order of Military Merit upon whom We have conferred Our Canadian Forces' Decoration, Governor General and Commander-in-Chief of Canada.

AT OUR GOVERNMENT HOUSE, In Our City of Ottawa, this twenty-eighth day of April in the year of Our Lord one thousand nine hundred and seventy-seven and in the twenty-sixth year of Our Reign.

BY COMMAND,
SYLVIA OSTRY
DEPUTY REGISTRAR
GENERAL OF CANADA

Terms of Reference

Commission of Inquiry on Newfoundland Transportation

1. Purpose:

A Commission of Inquiry, established under Part I of The Inquiries Act, will examine and report on issues related to the provision of domestic transportation services for Newfoundland. The Commission will inquire into existing transportation services for goods and people and assess the extent to which these services meet generally accepted Canadian norms. The Commission will consider appropriate levels of transportation services with choice of modes that will be required to meet future transportation needs in an efficient and cost effective manner. In recommending changes, the Commission will take into consideration national and provincial social and economic objectives.

2. Powers of the Commission:

The Commission is empowered to conduct hearings, to summon witnesses, to require the production of documents, to receive submissions orally or in writing and to assume all other powers applicable under Parts I and III of The Inquiries Act. The Commission will make recommendations to the Minister of Transport.

3. Terms of Reference:

3.1 The Commission will inquire into the economic, social, demographic and geographic factors which create current and future demands for domestic transportation. This will include an assessment of the economic/industry development plans for each area in the Province and will relate these needs to transportation services.

3.2 The Commission will note the Terms of Confederation and the constitutional obligations of the Government of Canada to Newfoundland related to transportation. It will consider their current impact and application and the extent to which they may influence cost effective solutions.

3.3 The Commission will examine conditions which are unique to Newfoundland and will discuss the manner and extent to which these factors influence the provision of domestic transportation.

3.4 The Commission will inquire into the efficiency and effectiveness of domestic transportation services. This will include a review and evaluation of subsidies and transportation related government programmes.

3.5 The Commission will consider the appropriate role for each mode in the provision of domestic transportation services consistent with the Terms of the Commission identified above. The Commission will relate its findings to their implication in the short (0-5 years), mid (5-10 years) and long term (beyond 10 years).

3.6 The Commission will investigate the important relationship between the provision of domestic transportation services and the achievement of regional and national employment and other social and economic objectives.

3.7 The Commission will take into account national implications that could follow from any recommended solution to transportation problems.

3.8 The Commission will consider the appropriate roles, responsibilities and obligations of governments, carriers and users of transportation services, and will assess them in terms of legislative, economic, social and commercial considerations.

3.9 For the purpose of ensuring the maximum degree of public awareness and participation, the Commissioner or designated representative will issue notice or visit communities prior to holding public hearings to:

- a) Explain the composition and power of the Commission;
 - b) Explain the procedures to be adopted for public hearings; and
 - c) Indicate the time and location of public hearings.
- To the extent feasible, the Commission will make substantive data available to the public for comment in relation to the holding of hearings.

3.10 In the conduct of the Inquiry, the Commission will make use of all previous work, studies and investigations undertaken by or on behalf of governments which it considers relevant. It will also take into account the current activities of governments, corporations, agencies and committees, and will make appropriate use of their work.

4. Recommendation Function:

4.1 The Commission will report its findings and recommendations on the issues, outlined in Section 3, to the Minister of Transport by December 31, 1977. The recommendations should be categorized by their influence on short, mid and long range requirements.

4.2 The Commission will include in its report an examination of traffic trends and the resulting impact of trends on the utilization of different modes. It will also report on the demands for increased capacity by mode and assess the implications of such demands on cost, service and social issues.

4.3 The Commission will give particular attention to the likely impact proposed changes will have on employment and will recommend methods of minimizing any detrimental effects.

5. Organization:

The Commission will consist of three Commissioners supplemented as necessary within the powers and authority defined in Part III of The Inquiries Act.

Note: Domestic transportation is defined as all intra-Newfoundland services and services between Newfoundland and the rest of Canada with the *sole exclusion* of international transportation.

The Inquiry Process

Information meetings

In order to ensure the maximum degree of public awareness and participation, Information Meetings were held throughout the Province during the summer of 1977. During the period from mid-June to mid-August, Commissioners, staff or representatives visited over 120 communities throughout the Island and Labrador.

The meetings were designed to give information to the public concerning:

- the events leading up to the establishment of the Commission;
- the previous Studies which have been carried out on Transportation in Newfoundland and the important and relevant recommendations which have been made;
- the Terms of Reference and Powers of the Commission;
- the procedures for submitting briefs to the Commission, during the series of Formal Hearings to be held in the fall.

It was important to ensure that all interested groups and individuals in Newfoundland were given an opportunity to make their views known to the Commission, concerning transportation problems, policies and principles. Therefore, the presentation of briefs to the Commission, preferably during the Formal Public Hearings, was greatly encouraged.

The Information Meetings also included a question and answer and discussion period when persons attending could ask for information, or make suggestions concerning topics or problems which the Commission might wish to investigate or consider.

For the Information Meetings phase, an information booklet was prepared for distribution to persons attending meetings, or through the mails to persons requesting information. These information booklets were also mailed to a number of groups considered to be concerned with transportation problems, such as Chambers of Commerce, Rural Development Associations, Town Councils, professional associations,

labour groups, school boards, Provincial Government Departments, Newfoundland Members of the House of Assembly (M.H.A.'s), libraries, companies depending on transportation services, transportation companies and news media throughout the Province.

Also, summaries of selected key studies on transportation in Newfoundland were made available to persons requesting such material for background information. It was intended that such material would help in the preparation of briefs to be presented to the Commission.

At the Information Meetings and press briefings, it was requested that those persons or groups who intended to present briefs should advise the Commission by the end of August. Based on the indications received, a schedule of locations and dates was prepared for Public Hearings.

Public hearings

Based on notifications of intent to present briefs received up to and including September 6, 1977, 15 centres were selected and a schedule of formal hearing dates was prepared.

Towns Visited During Information Meetings June 21, 1977 through August 21, 1977

| | |
|------------------|----------------------|
| Arnold's Cove | English Harbour East |
| Badger | English Harbour West |
| Baie Verte | Flower's Cove |
| Bay de Verde | Fogo |
| Bay L'Argent | Forteau |
| Bishops Falls | Gambo |
| Bonavista | Gander |
| Botwood | Gander Bay |
| Branch | Garnish |
| Buchans | Glovertown |
| Bunyan's Cove | Goose Bay |
| Burgeo | Grand Bank |
| Burlington | Grand Falls |
| Burnt Island | Grand Le Pierre |
| Carbonear | Gunner's Cove |
| Carmanville | Hampden |
| Cartwright | Harbour Breton |
| Catalina | Harbour Mille |
| Charlottetown | Hare Bay |
| Clareville | Hatchet Cove |
| Colinet | Hawke's Bay |
| Conne River | Heart's Content |
| Cook's Harbour | Hermitage |
| Cottrells Cove | Howley |
| Cow Head | Isle aux Morts |
| Daniel's Harbour | Jackson's Arm |
| Deer Lake | King's Cove |
| De Grau | Labrador City/Wabush |
| Eastport | Lamaline |

Although the schedule was fixed in regard to places and dates of hearings, the Commission retained a certain amount of flexibility in the timing of presentations. Presentation times were set and agreed upon in consultation with presenting parties, but extra time was made available for late submissions. Although priority was given to presentors who notified the Commission in advance, all other "unannounced" parties were accommodated in the extra time made available.

The Formal Public Hearings began in St. John's September 19, 1977, and ended in St. John's November 21, 1977. During the two-month period, the Commission held hearings in Milltown, Buchans, Gander, St. Anthony, Port aux Choix, Carbonear, Marystown, Goose Bay, Wabush/Labrador City, Clareville, Deer Lake, Corner Brook, Stephenville and Port aux Basques.

A total of 102 briefs was presented during the Hearings. As well, two dozen briefs and letters were received by mail at the Commission office.

| | |
|------------------|-----------------------|
| La Scie | St. Anthony |
| Lawn | Fintan's |
| Leading Ticks | St. George's |
| Lewisporte | St. John's |
| Lourdes | St. Joseph's |
| Lumsden | St. Lawrence |
| Main Brook | St. Mary's |
| Makkovik | Sally's Cove |
| McKay's | Salt Pond |
| Milltown | Sop's Arm |
| Musgrave Harbour | South Brook |
| Musgravetown | South East Bight |
| Norman's Cove | Southern Bay |
| Parker Cove | Springdale |
| Picadilly | Stephenville |
| Placentia | Stephenville Crossing |
| Plum Point | Sunnyside |
| Point Leamington | Terrenceville |
| Pool's Cove | Terra Nova |
| Port aux Basques | Trepassey |
| Port aux Choix | Trinity |
| Port Blandford | Triton |
| Raleigh | Trout River |
| Ramea | Twillingate |
| Random Island | Upper Ferry |
| Rigolet | Wareham |
| Robert's Arm | Wesleyville |
| Rocky Harbour | Westport |
| Roddickton | West St. Modeste |
| Rose Blanche | Whitbourne |
| St. Alban's | Woody Point |

Schedule of Formal Hearings

St. John's

Monday, September 19, 1977
Tuesday, September 20, 1977
Wednesday, September 21, 1977

Milltown

Tuesday, September 27, 1977

Buchans

Wednesday, September 28, 1977

Gander

Monday, October 3, 1977

St. Anthony

Monday, October 10, 1977
Tuesday, October 11, 1977

Port aux Choix

Wednesday, October 12, 1977

Carbonear

Monday, October 17, 1977

Marystown

Thursday, October 20, 1977
Friday, October 21, 1977

Goose Bay

Monday, October 24, 1977

Labrador City/Wabush

Tuesday, October 25, 1977

Clareville

Friday, October 28, 1977

Deer Lake

Monday, October 31, 1977
Tuesday, November 1, 1977

Corner Brook

Wednesday, November 2, 1977
Thursday, November 3, 1977

Stephenville

Monday, November 7, 1977
Tuesday, November 8, 1977

Port aux Basques

Tuesday, November 8, 1977
Wednesday, November 9, 1977

St. John's

Monday, November 14, 1977

Tuesday, November 15, 1977
Wednesday, November 16, 1977
Thursday, November 17, 1977
Friday, November 18, 1977
Monday, November 21, 1977

Briefs Presented at Formal Hearings

St. John's—Airport Inn

September 19, 1977

- Government of Newfoundland and Labrador.
- Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees (BRAC) System Division No. 135.
- Mr. Abe Peters, St. John's.
- Mr. Michael Muench, Witless Bay.

September 20, 1977

- Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees (BRAC) System Board of Adjustment No. 163.
 - Bluebuoy Foods Limited.
 - United Transportation Union.
 - Canadian National.
- September 21, 1977
- Transport 2000.
 - Canadian Saltfish Corporation.
 - Newfoundland Container Lines Limited.
 - Newfoundland Steamships Limited, Newfoundland Transport Limited, Clarke Transportation Canada Limited.

Milltown—Community Center

September 27, 1977

- Bay D'Espoir Joint Council.
- Conne River Indian Band Council.
- Mr. Jack Winsor, MHA, Fortune/Hermitage.
- St. Jacques/Coomb's Cove Local Improvement District.

Buchans—Anglican Parish Hall

September 28, 1977

- Royal Canadian Legion—Branch 19.
- United Steelworkers of America—Local 5457.
- Local Improvement District of Buchans.

Burnt Berry Motel, Trans Canada Highway

September 28, 1977

- Robert's Arm Town Council.

Gander—Holiday Inn

October 3, 1977

- Gander Town Council/Chamber of Commerce.
- Fogo Island Improvement Committee.
- Lewisporte Chamber of Commerce.

- Lewisporte Wholesalers Limited, Bishops Falls Wholesalers and Valley Distributors Limited.

St. Anthony—Vinland Motel

October 10, 1977

- St. Anthony Town Council.
- St. Anthony Airport Commission.

October 11, 1977

- International Grenfell Association.
- St. Anthony Building Supplies.
- Dr. Bill Bavington (Medical Health Officer).

Port aux Choix—Women's Institute Building

October 12, 1977

- Businessmen of Roddickton, Bide Arm and Englee.

Carbonear—Town Hall

October 17, 1977

- Earle Freighting Service Limited.
- Earle Brothers Fisheries Limited.

Marystown—Hotel Mortier

October 20, 1977

- St. Lawrence Town Council.
- Bay L'Argent Town Council.
- Newfoundland and Labrador Association of Fire Chiefs.

October 21, 1977

- Burin Peninsula Joint Council.
- English Harbour East Community Council.
- Town of South East Bight.

Goose Bay/Happy Valley—St. Andrew's Parish Hall

October 24, 1977

- Labrador Transportation Policy Group.
- Felsberg Enterprises and Farm Limited.
- Labrador Airways Limited.

Labrador City/Wabush—Sir Wilfred Grenfell Hotel

October 25, 1977

- Labrador West Chamber of Commerce.
- United Steelworkers of America, Local 6285.
- The Reverend Charles Deharveng.
- Mr. Ernest Condon.

Clareville—Holiday Inn

October 28, 1977

- Bunyan's Cove Roads Committee.
- Town of Musgravetown.
- Random Island Improvement Committee.
- Clareville Rotary Club.
- Clareville Area Chamber of Commerce.

Deer Lake—Lions Club

October 31, 1977

- Baie Verte Chamber of Commerce.

- Bishops Falls Town Council.
- Humber Valley Development Association.
- Local Improvement District of Howley.

November 1, 1977

- Grand Falls Chamber of Commerce.
- Deer Lake Chamber of Commerce.

Corner Brook—Mamateek Motor Inn

November 2, 1977

- Corner Brook Chamber of Commerce, Corner Brook Economic Development Corporation Limited.

- United Transportation Union, Locals 1350 and 1521.

November 3, 1977

- Lundrigan's Limited, Atlantic Building Materials Limited, Atlantic Design Homes, City Motors Limited, Newfoundland Forest Products Limited, Atlantic Gypsum Limited, North Star Cement.

- Corner Brook Status of Women Council.

- Mr. George Gates, Woody Point.

- Mr. Martin Ducey, Corner Brook.

Stephenville—Hotel Stephenville

November 7, 1977

- Bay St. George Transportation Commission "Air Branch".

- W. H. Keating, Stephenville.

- Bay St. George Sea Foods Limited.

- Pike's Limited/Central Dairies Limited.

- Stephenville Industrial Development Commission.

November 7, 1977

- Bay St. George Joint Council.

- Bayshore Foods Limited.

- Bay St. George South Area Development Association.

- Port au Port Economic Development Association.

November 8, 1977

- Harmon Corporation.

Port aux Basques—Hotel Port aux Basques

November 8, 1977

- Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees, Jubilee Lodge 551.

- Codroy Valley Area Development Association.

- Port aux Basques Chamber of Commerce.

November 9, 1977

- Town of North Sydney, Nova Scotia.

- Mr. Stephen A. Neary, MHA, LaPoile District.

- Town of Channel-Port aux Basques.

St. John's—Hotel Newfoundland

November 14, 1977

– St. John's Board of Trade.

– Town of Wabana.

November 15, 1977

– Newfoundland Shipowners, Agents and Brokers Association.

– Canadian Railway Labour Association.

November 16, 1977

– Canadian Brotherhood of Railway, Transport and General Workers.

– Fisheries Association of Newfoundland and Labrador.

– Puddister Trading Company Limited.

– Brotherhood of Railway Carmen, Local 669.

– Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees—System Board of Adjustment, No. 163.

– Railway Union Labour Council.

November 17, 1977

– Association of Professional Engineers of Newfoundland.

– United Transportation Union, Local 1392.

November 18, 1977

– New Democratic Party of Newfoundland and Labrador.

– Newfoundland and Labrador Federation of Labour.

– St. John's Municipal Council.

– Chimo Shipping Ltd. and Crosbie Transport.

– Town of Jerseyside.

– Placentia Area Development Association.

– MOT Water Transportation Assistance Directorate.

November 21, 1977

– Air Canada.

– Eastern Provincial Airways.

– Atlantic Provinces Economic Council.

– Atlantic Provinces Trucking Association, Canadian Trucking Association.

– Port of St. John's Authority.

– Canadian National.

Section 1

The Past

Chapter I

Historical Introduction

Historical Background

The Province of Newfoundland is made up of two parts, the Island of Newfoundland and the mainland portion known as Labrador.

The Island of Newfoundland is the northeastern extremity of the Appalachian region while Labrador constitutes the eastern rim of the Canadian Shield. Geological differences notwithstanding, there are features common to both, that, when combined with patterns of demography, constitute significant impediments to the development of an adequate system of transportation.

Characteristics of the landscape, significant in this context, are an admixture of old, hard, exposed rock with vast areas of bogland; innumerable lakes and ponds resulting from glacial scouring and disrupted drainage patterns; and a multitude of short, rapid rivers and brooks that drain the interior.

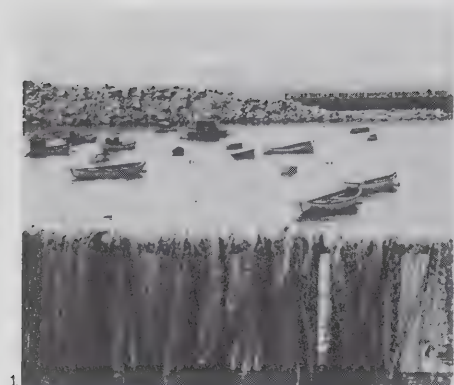
Except in the northern segment of Labrador where the Torngat mountains reach 5000 feet, land elevations are not great. The highest mountains on the Island hardly approach 2600 feet. Nevertheless, the Newfoundland terrain is notoriously hilly, particularly along the coasts, where steep declivities and deep ravines, many of them bearing tumultuous brooks, follow each other in interminable process. Furthermore, the general slope of the land and the line of most of the major river drainage systems is from southwest to northeast, whereas settlement patterns dictate transportation routes cutting across this pattern.

The coastline itself is incredibly indented. Although the Island of Newfoundland is a rough equilateral triangle of only 300 miles on a side, its total coastline exceeds 6000 miles, while that of Labrador adds

another 4000 miles to the Province's frontage on the Atlantic Ocean.

It was this ten thousand mile long coastline that constituted the Newfoundland "frontier". Colonists in other parts of North America gradually pushed back the wilderness by clearing the land and subduing it, exploring the vast reaches of the continental interior, tracing river systems, locating mountain passes, establishing portages, and laying out a design for the ultimate creation of a network of roads, railways and canals. However, the Newfoundland settlers clung precariously to the storm-battered edge of the Atlantic and gradually extended their settlements along the coast. Their object was not to subdue the land but rather to locate unexploited fishing grounds. Nor did they seek the quiet, sheltered waters of the deeper bays and finer harbours, despite their attractions of wood, water and sometimes arable soil. Rather they sought to be as near the fishing grounds as they could be, even if it meant the barest modicum of shelter for their boats and fishing gear, the tiniest perch for their houses and stores or the smallest piece of land for their kitchen gardens.

From the beginning of the seventeenth century onward the process continued until, by the beginning of the twentieth century, there was no significant stretch of coastline uninhabited. Tiny hamlets, larger villages and small towns clung to the coastline, occupying the most bleak and exposed locations on headlands and off-shore islands. Wherever one of the innumerable coastal indentations formed a sufficient adequate harbour, any one of Newfoundland's 2000 settlements could be found and each settlement relied on the sea as the only avenue of communication. Subsequently, the reality of a tiny population of



1



4



8



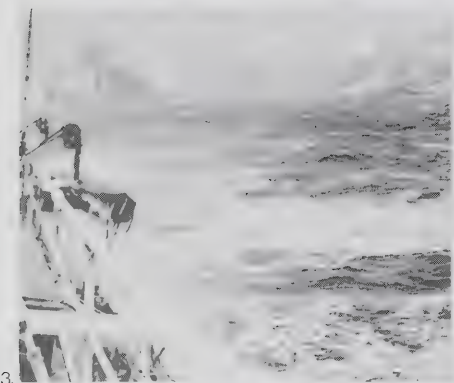
2



5



9



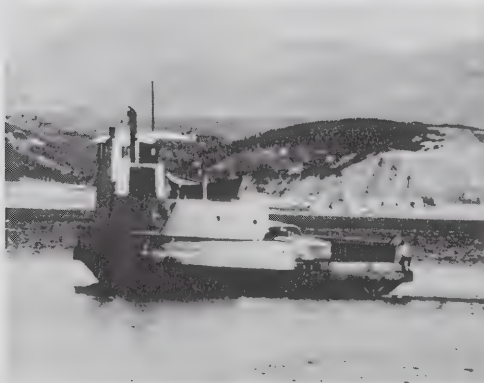
3



6



10



7

1. Bay de Verde, icebergs
2. Gaultois
3. Grey River Fjord
4. Salvage in fog
5. Wesleyville
6. Cliffside Road, Fortune Bay
7. Ferry '*Highland Lass*', Bonne Bay, with Gros Morne in background
8. '*Fogo Transport*' in ice near Little Bay Islands
9. Wareham in winter
10. Snow drift on Red Bay Road, southern Labrador

fewer than 500,000 people occupying a "ribbon development" extending over 10,000 miles, posed problems of gargantuan proportion to governments charged with the responsibility of providing basic services, including adequate transportation and communications.

Furthermore, the magnitude of this task was appreciably increased by the severities of Newfoundland's notoriously unpredictable climate and by its geographical position athwart the Labrador Current. Although, in general, the climate is a mid-latitude marine one with cold, but not severe, winters, and warm to cool summers, the range of temperature variation over short periods of time tends to the extreme.

Mid-latitude storms, moving across Canada and up the Atlantic seaboard, have a pronounced effect on the Newfoundland climate. The warm air drawn in on the southern side of the disturbances contributes to the high precipitation figures for the southern part of the Island. The northeast and east winds prevailing in advance of each storm, blow across the cold Labrador Current and serve to keep coastal summers cool and to retard the coming of spring. The northwest winds, following in the wake of each storm bring the cold Arctic air which forces temperatures lower than latitude and marine location would suggest.

To the south of the Island the cool air associated with the Labrador Current mixes with the warmer air over the Gulf Stream producing dense fogs. These are most common over the Grand Banks and along the south and southeastern portion of the coast.

Because of these circumstances, weather conditions rarely remain stable in the Newfoundland region for more than two or three consecutive days. The almost invariably rapid movement of storm systems from west to east, particularly in winter, produces equally rapid alternations between mild temperatures and bitterly cold ones with the concomitant change from rain to snow. It is not an unusual phenomenon to progress in a single twenty-four hour period through a cycle in which snow, freezing rain, rain, clearing, sunshine, cloud and snow flurries follow each other in speedy succession; and in which temperatures rise slowly to 5 or 6 degree celsius and then drop to, perhaps, 20 degrees below zero. Conditions such as these play havoc with road beds and with road surfaces. Indeed, in the face of continual progression through cycles of frost and thaw, snow and hail, the task of maintaining gravelled roads in reasonable condition through a Newfoundland winter is practically insurmountable. Furthermore, the effort is costly, for in such changeable conditions the tasks of ploughing, sanding and salting are virtually never finished. Difficulties are, moreover, severely aggravated by the almost incessant high winds which turn light snow into a blizzard and a moderate fall of a few centimeters

into road-blocking drifts that have to be measured in meters.

We need hardly state the obvious fact that those same conditions create special problems of considerable magnitude for the ships and men who maintain transportation services dependent upon coastal navigation.

The Labrador Current streaming southward from the Arctic keeps most of the Province's coastal waters perpetually cold so that only a modest drop in temperature is required for the formation of sea ice. From late November onward through winter most sheltered waters, except along the south coast, are firmly frozen. As winter moves into spring, this land-fast ice is released from the warming land and begins to move at the behest of wind and current, while at the same time the vast floes of the eastern Arctic begin their annual southward migration. Moving majestically and inexorably down the coast, these Arctic floes, augmented by local contributions, constitute a veritable blockade varying in intensity from year to year as dictated by a host of interrelated conditions. Although modern ice breakers have extended both the range of ships and the length of the shipping season, ice, and more especially the heavy Arctic pack, is still the most menacing and most intractable of all the obstacles, impeding the establishment of reliable year-round sea communications with the more remote coastal communities.

Until the middle of the nineteenth century, and to a substantial degree for nearly a hundred years thereafter, the fishery and particularly the inshore fishery, was virtually synonymous with the Newfoundland economy. The manner in which that fishery was organized obviated the necessity for a sophisticated system of transportation. Each separate village was a self-contained production unit tied to a local or regional merchant who arranged for the provision of basic supplies and food staples and who purchased and arranged for the export of fishery products. These merchants in turn relied upon more substantial dealers located at one of the larger outport centres or at St. John's. In turn, these large dealers maintained communication with the export market countries and with suppliers in both Europe and North America. Collection and distribution functions were conducted by sea in predominantly small local ships. Frequently, the same vessels that served the ends of production were also used to transport freight and passengers.

Essentially, the population was not a mobile one. The majority of fishermen and their families lived out their lives without ever moving more than a few miles from their place of birth. The limited movements that circumscribed their daily rounds and common tasks were adequately served by small fishing boats. These boats provided the mode of transportation, whether

for purposes of social intercourse with neighbouring communities or for the procurement of supplies.

The unorganized, unplanned and unencouraged growth of settlements, the entire absence of any form of local government, and the disinterest or even positive disfavour of the central government inhibited the growth of any form of land transportation system. Rudimentary foot paths existed within communities and rough trails sometimes linked adjacent villages. Slide paths gave access to the forests in winter but these, following the line of frozen bog and pond as much as possible, were often impassable in summer-time.

In short, after two hundred years of settlement, the sea was still Newfoundland's only highway; the first roads had yet to be built. The arrival of Sir Thomas Cochrane as Governor in 1825 coincided with the elevation of Newfoundland, by Imperial Statute, from the status of fishing base to that of colony. And under Cochrane's governorship emerged the first road building scheme in Newfoundland. The first objective was to shorten the journey from St. John's to the eastern shore of Conception Bay and to eliminate the sea voyage north around Cape St. Francis. To achieve this purpose, Cochrane built carriage roads to Portugal Cove and Topsail, a distance of 9 and 12 miles respectively from St. John's, which eliminated the necessity for a journey of 40 to 60 miles by sea.

From the termini of these roads, packet boats ran to the populous settlements on the other side of Conception Bay. From Spaniard's Bay and Carbonear, roads were driven across the next peninsula to New Harbour and Heart's Content, on Trinity Bay so that travellers could save even more time and also avoid the frequently rough passage around Grates Point and Baccalieu. To the old West Country opponents of settlement in Newfoundland, Cochrane's policies were an anathema. As Peter Ougier put it, "They are making roads in Newfoundland. Next thing they will be having carriages and driving about."

By the time that Responsible Government had been introduced in 1855, a number of local trails and foot paths had been improved and linked to make barely passable carriage roads around Conception Bay from Topsail to Carbonear, from Holyrood to Placentia by way of Salmonier, and up the Southern Shore from St. John's to Ferryland. Subsequently, many small local projects were undertaken by the Outport Road Boards whose responsibilities extended to the building and maintenance of roads, bridges, wharves, slips, breakwaters, sewers and drains, as well as to the supervision of poor relief projects. More particularly, the Road Boards were the prime instruments for the distribution of political patronage and this fact, combined with the perennial shortage of funds available to the legislature, meant that much that was done was not well done and ensured that there would

be no systematic design for a road network to serve the whole colony.

Indeed, prior to 1925, there was not even the suggestion of an integrated scheme for a road network. The pressures to develop such a network had, indeed, been somewhat dissipated by the construction of the railway and the development of a coastal boat service. Nevertheless, in 1925, partly as a consequence of a new tourist development policy, the government created a Highroads Commission and set about planning for road development.

Since more than half of the total population of the colony was concentrated on the Avalon Peninsula, initial efforts were concentrated in that region. Slowly the tracks, trails, paths and carriage ways around the perimeter of the Peninsula were linked together and converted to gravel "highways". Local systems were also developed on the Bonavista and Burin Peninsulas. In addition, road systems were built around Grand Falls and Corner Brook, where development had been necessitated by the establishment of pulp and paper mills in 1908 and 1925 respectively. And finally road systems were developed in the Codroy Valley where the intention was to encourage the development of agriculture.

In virtually all cases, the roads constructed were narrow, winding and hilly, pitted with pot holes in summer and impassable in winter. Even so, they served to demonstrate the enormous cost of road building in the Newfoundland terrain. Hardly a mile of construction could be undertaken that did not involve blasting and cutting, filling and bridging or, alternatively, tortuous winding around bogs and ponds, gullies and ravines, precipitous slopes and rocky outcroppings.

Despite the still primitive nature of the roads and the fact that none of the local systems were interconnected with any other, motorized traffic increased from 1054 vehicles in 1925 to approximately 4000 in 1935. In the meantime public expectations began to increase slowly at first, and then at an ever increasing rate as other forms of communication brought Newfoundland into the mainstream of twentieth century North American life style.

The Commission of Government at first allocated no funds for local roads, although they did provide materials where local people supplied labour. But this approach was not very popular and local road building virtually ceased until 1943 when the Commission agreed to pay for every hour of labour that was matched by a free hour. In the first year of this scheme 109 local road committees were formed and by 1956 this number had grown to exceed 600. Meanwhile, a plan for a trans-Island road had been formulated. However, in 1939, when only a fifty mile section from Grand Falls to Hall's Bay had been constructed,



1. Labrador coast, c. 1890
2. Banking schooner '*Athena*', c. 1900
3. '*S. S. Kyle*' (Drawing by Ted Drover)
4. '*Caribou*'
5. '*Cabot Strait*' in ice
6. '*Northern Ranger*'
7. '*William Carson*'

the whole idea had to be placed in abeyance for the duration of the war.

The war brought both Canadian and American military bases and access roads necessary to their construction. These included a thirty-five mile road to link Gander with its supply base at Lewisporte and service roads around the bases at Argentia, Stephenville and Goose Bay. In 1945, Governor Cochrane's first carriage road, which had since become the main highway leading out of St. John's, was paved the 12 mile distance to Topsail.

In the period 1945 to 1949, the road systems of the Avalon and Burin Peninsulas were interconnected, the Cabot Highway from Clarenville to Bonavista was constructed; the government, assisted by the paper companies, built a road link between Cormack and Hall's Bay; and a few minor "roads to resources" were built to assist logging and agricultural developments.

To this point, then, virtually all that had been accomplished had been done on an *ad hoc* basis. Immediate economic necessity or political expediency rather than rational planning had been the springs of action. As A. B. Perlin put it, "There had never been a major planning of highway construction on a wholly efficient basis with relation to winter usage and to the growth of motor traffic..." The concept of all-weather roads outside a limited area did not seem to exist although the value of highways for development, for the breaking down of isolation and for greater efficiency in administration of public services should have been the paramount consideration.

After the entry of Newfoundland into Confederation, a plan was developed to overcome the isolation of coastal communities by means of a major road construction program. As a consequence, there remain today relatively few settlements that are not connected to the main provincial road system. The notable exceptions are communities on the southwest coast and on the eastern side of the Northern Peninsula and in coastal Labrador. The largest single project of the period was the building of the Trans Canada Highway. Completed in 1965, it boasted 565 miles of pavement and 85 bridges. This achievement was made possible by Federal cost sharing and more particularly by the sharing formula that came into effect on April 1, 1963 and provided for a Federal contribution of 90 % of the cost.

It was early recognized that in a climate of rising expectations a relatively successful road building program would inevitably breed discontent. A mobile population would demand services comparable with those afforded their more fortunate fellow citizens in other parts of the country. And this has been the case. Even with substantial Federal assistance, the government was hardly able to keep pace with both expectations and real demands upon the road

system. More and more the economy, in all its manifestations, turned toward road transport. By the same token, the significance of rail and coastal boat services declined.

At one time the railway had been seen as the hope for economic salvation. Throughout the latter half of the nineteenth century it was widely assumed that the building of a railway would not only alleviate the age old problems of isolation but would also open the allegedly vast wealth of the interior to exploitation. Moreover, it was expected to foster the development of agriculture as an economic base to complement the fishery.

At last, in 1881, the great project was begun and by July of 1882 the line of narrow gauge rail extended from St. John's to Holyrood *via* Topsail and the shoreline of Conception Bay. Two years later it had been extended to Harbour Grace *via* Whitbourne and Tilton. The company which had contracted to build the line had thus far undergone many vicissitudes, surviving only on money borrowed on bond issues and government guarantees and subsidies. Finally, the assets of the bankrupt company were taken over by the Newfoundland Government which, in 1886, began construction of a new line from Whitbourne to Placentia. This line was completed in October, 1888.

The decision was now taken to extend the railway from Whitbourne northward and westward to Hall's Bay and to seek a private contractor to undertake the task. The Placentia line was incorporated into the projected Hall's Bay Railway and Robert G. Reid of Montreal was the successful bidder on the construction contract which was signed in 1890. Although the opening of the interior had been a major consideration in the earlier conceptual period, the line as now planned did not strike out to the westward. Instead it headed north. And while it did not follow the indentations of the coast, it did make access possible for the populations of Trinity, Bonavista and Notre Dame Bays by cutting across the bases of the east and northeast coast peninsulas and touching tidewater at the heads of all the major bays.

By 1893, the line had reached Norris Arm and at this point it was decided to abandon the idea of a terminus at Hall's Bay. Instead it struck out for Port aux Basques at the southwestern extremity of the Island which was only one hundred sea miles from Sydney, Nova Scotia. Finally, in 1897, the 547 miles of railway were completed.

Reid had already agreed with government to operate the railway for ten years from September 1, 1893. Now, in 1898, he negotiated a new contract under which the Reid Newfoundland Company undertook to operate the total Newfoundland railway system for a fifty year period. The formal opening of a trans-insular service took place in June 1898. The first train required 27 hours 45 minutes for the run from St.

John's to Port aux Basques. The slow running speed could be attributed, in part, to the narrow (3 feet 6 inches) gauge, the poor alignment (only 130 miles of track are on a straight tangent), excessive curvature and steep gradients.

Additional construction in 1898 included a branch line from Notre Dame Junction to Lewisporte, a "cut-off" from Brigus Junction to Tilton and an extension of the line from Harbour Grace to Carbonear. Approximately ten years elapsed before further construction was contemplated, but between 1911 and 1915, an intensive period of building was prompted by almost purely political considerations. This financially disastrous policy saw lines built to Bonavista, Trepassey, Heart's Content, Grates Cove and Bay de Verde. Another from Northern Bight to Fortune was completed only as far as Terrenceville, while a projected line from Deer Lake to Bonne Bay did not progress beyond the state of preliminary grading of the right of way.

The main line had never been financially sound and the added burden of those branch lines was more than the Reid Newfoundland Company could bear. After a series of maneuvers which need not be detailed here, the government repossessed the railway in July 1923 and thereafter operated it as a nationalized utility.

During the 1930's the branch lines to Terrenceville, Trepassey, Heart's Content, Grates Cove and Bay de Verde were all abandoned. The remaining system, including the main line from St. John's to Port aux Basques and branches from Brigus Junction to Carbonear, from Placentia Junction to Argentia, from Shoal Harbour to Bonavista and from Notre Dame Junction to Lewisporte, continued in operation as the Newfoundland Railway. In 1949, it was absorbed into the Canadian National Railway system.

Together with a few private branch lines, the total system at that time included 956 miles of narrow gauge track, by far the longest narrow gauge railway in North America. Over the years, Canadian National improved and increased the rolling stock; converted the locomotives from steam to diesel power; made adjustments to road alignments and improved the road bed. Nevertheless, the railway continued to be both costly and inefficient to operate. Apart from the fact that its route nearly doubles the actual distance across the Island, the most serious disability is the narrow gauge. This necessitates either the breaking and reloading of freight or else the transfer of standard gauge cars to narrow gauge trucks. All this greatly increases the cost of freight handling and inhibits speed and efficiency.

To a degree, both roads and railways were alien forms of transportation in Newfoundland. It was the coastal boat service that matched the pulse of the Island's history. It grew from the traditional mode of

communications and broke the isolation of even the most remote outposts. It combined practical utility with drama, romance, and the stuff of which legends are made.

It was not until 1875 that the government of Newfoundland found it necessary or practical to subsidize a coastal boat service that would carry mail, freight and passengers and that would supplement the capacity of the thousands of private boats and vessels that served the needs of hundreds of still isolated communities. In that year Bowring Brothers Limited won a contract to carry mail along the coast and in 1876 they ordered the construction of two steamers, the '*Curlew*' and the '*Plover*'. Both boats would provide mail and freight services as well as first and second class cabin accommodation for passengers.

Gradually, other substantial mercantile firms secured government service contracts. In the 1890's we might have found the '*Grand Lake*' and the '*Virginia Lake*' sailing the northeast and the south coasts and up the west coast as far as Bonne Bay; the '*Alert*' in Placentia Bay; the '*Favourite*' in Trinity Bay; the '*Lady Glover*' in Notre Dame Bay; and the old '*Leopard*' sailing the coast of Labrador.

When the railway finally reached Port aux Basques, the Reid's '*S.S. Bruce*', an elegant steel, ice-strengthened vessel was waiting to commence the Gulf service to North Sydney.

Reid's contract required that he should supply and run, in addition to the '*Bruce*', "seven steamers of a superior description: one in each of the large bays, so as to connect with the railway, and one to ply to Labrador in summer." In 1899 and 1900 these seven crossed the Atlantic from Scottish shipyards to constitute the famous Alphabet Fleet of ships bearing Scottish place names ending in the letter "e". They were, in alphabetical order: '*Argyle*', '*Bruce*', '*Clyde*', '*Dundee*', '*Ethie*', '*Glencoe*' and '*Home*'.

With gleaming paintwork, polished brass and mahogany, these were no tramps but elegant little ships whose first class saloons boasted fine linens, sterling silver cutlery, and impeccable service. And even if the second class accommodations were more plebian in their appointments, they offered a service, though frequently inadequate to the demands made upon it, which introduced a new era of social mobility that had heretofore been almost inconceivable. Their toughness and durability, the sometimes uncanny navigational skills of their officers, and the competence of their crews endeared them to thousands of Newfoundlanders and made them the most welcome visitors to dozens of coastal settlements. As the St. John's '*Evening Telegram*' put it, in a tribute published in 1902,

At any given time of the day or night several steamers are edging past beetling cliffs, squeezing through narrow tickles, maneuvering in

restricted anchorages, battling heavy gales and tricky tides; encountering ice, sudden snowstorms, impenetrable fog, subject always to the imponderables involved in the possible breakdown of machinery or navigational equipment. The record of the coastal boat captains and crews is second to none. The thousands of sea miles they cover involve more hazards and frustrations in one 'round trip' than most deep-sea captains encounter in a year.. Yet..the system is one of the safest forms of travel in the world—perhaps the safest, having regard to the routes it serves and the conditions that surround them.

Between 1900 and 1914, the *'Invermore'*, the *'Kyle'*, the *'Lintrose'* and the *'Meigle'* joined the Alphabet Fleet. Still, the demand for service grew; and although the Reid Company would have preferred a monopoly, other local firms continued to receive government contracts. Thus, in the early years of the century, Bowrings built the *'Portia'* and *'Prospero'* to replace the *'Curllew'* and *'Plover'*, while the Crosbies were engaged to employ their ships *'Sagona'* and *'Fogota'* in service to communities north from St. John's to Change Islands. Small firms ran the *'Brunswick'* on the west coast and the *'Stella Maris'* on the northern Labrador shore.

In 1923, when the Newfoundland Government took over the railway, they acquired as well all that remained of the Alphabet Fleet together with the vessels that had been operated under contract by the Crosbies and Bowrings. As a symbol of the new order, they almost immediately ordered the building of the *'Caribou'*—2200 tons, luxuriously appointed, specially designed for navigation in ice, she would be queen of the fleet and the principal ferry on the Gulf run.

Meanwhile, by the 1930's, time and the hazards of Newfoundland coastal navigation had brought inevitable loss and deterioration to the coastal service ships. Despite straitened circumstances, additions to the fleet were imperative. Consequently, the *'Northern Ranger'* was ordered for delivery in 1936. This vessel served out her life on the 1960 mile round trip run from St. John's northward to southern Labrador ports, through the Strait of Belle Isle and down the west coast to Corner Brook and thence retracing that route back to St. John's. In 1940, two new ships, the *'Burgeo'* and the *'Baccalieu'* were added, the former primarily serving the Gulf run to Sydney, and the latter operating along the southwest coast between Argentia and Port aux Basques. In 1946, three additional ships were ordered from the shipyards of Fleming and Ferguson of Paisley, Scotland. These were the *'Bar Haven'*, the *'Springdale'* and the *'Cabot Strait'*, the last of these a worthy successor to the *'Bruce'* and the *'Caribou'*.

In addition to those steel vessels, the Commission of Government had authorized in the period 1944-46 the construction at Clarenville of a fleet of 300 ton wooden vessels to be used primarily as freighters in the coastal trade. This "splinter fleet" included the *'Clarenville'*, *'Burin'*, *'Bonne Bay'*, *'Glenwood'*, *'Trepassey'*, *'Exploits'*, *'Placentia'*, *'Ferryland'* and *'Twillingate'*.

In 1949, the Newfoundland railway as well as the coastal boat service was taken over by Canadian National. At that time two of the old Alphabet Fleet, the *'Kyle'* and the *'Glencoe'* were still in service as were the newer vessels acquired during the Commission of Government Era. Canadian National also acquired three of the "splinter fleet" vessels to serve temporarily until new ships could be commissioned.

It was soon apparent to Canadian National, as it had been to the Newfoundland Government, that an adequate coastal boat service would require large scale subsidies. More particularly, service on the Gulf now assumed a position of paramount importance. This was due to the Canadian protective trade tariffs. Traditionally, Newfoundland had traded primarily with the United States or Great Britain but now trade with Canada was to be established.

As the automobile came into greater use, the *'William Carson'* became in 1955 the first major ferry commissioned by Canadian National for the Gulf service. Built at Montreal, she was four times as large as the *'Cabot Strait'* and was capable of transporting 500 passengers together with 110 cars and trucks and 600 tons of cargo.

Between 1952 and 1966, passenger traffic across the Cabot Strait increased from 60,000 to over 100,000 per year and freight volumes rose from 80,000 to 176,000 tons. To accomplish this, the work of the *'Carson'* was supplemented by using, at one time or another, most of the older ships in the service and by the acquisition of several new ones.

Meanwhile, the older coastal boats were gradually retired and replaced by the *'Bonavista'* and *'Nonia'*, the *'Petite Forte'*, the *'Hopedale'* and the *'Taverner'*, none of which differed markedly from their predecessors. By the mid-sixties, as the road network expanded, the significance of the coastal service had declined to a shadow of its former status. Nevertheless, along the south coast and the coast of Labrador, the majority of communities were still utterly dependent on the coastal "steamer".

It is, perhaps, easy to be caught up in the romance and the drama of the coastal boats and to forget that the service, invaluable as it was, and is, did not always provide the ultimate in comfort and convenience to travellers or to those who relied upon it for mail deliveries and freight shipment. The hazards of navigation in Newfoundland coastal waters, the unpredictable fury of the weather and the constant threat of the

ice pack in season, were only some of the trials that had to be borne. Delayed and disrupted schedules were inevitable. Overcrowding, lack of cabins, sometimes even lack of sitting space, were not uncommon. Although these conditions were generally borne with good grace, there was, as the years advanced, a growing demand for better conditions. Discomforts that were once taken for granted, were no longer to be tolerated.

It is perhaps true to say that the coastal boat service, for all its deficiencies, had, in the long run, a more profound impact upon rural Newfoundland than any other government service. However, the growth of air traffic has had an impact which is very nearly as profound. In the third and fourth decades of this century, Newfoundland's mid-Atlantic geographical location kept it at or near the center of aviation history. Pioneers of trans-Atlantic flying turned naturally to Newfoundland, firstly as a base of operations and subsequently as an important staging area. It was not, however, until 1936 that the British Air Ministry began construction of a major civil airport at Gander. The war brought an enormous increase in the volume of trans-Atlantic air traffic and a corresponding increase in the importance of Gander. It also brought the construction of military airfields, subsequently to be converted to civilian use, at Argentia, Goose Bay, Stephenville and Torbay.

In 1942, Trans-Canada Airlines, operating a ten passenger Lockheed aircraft, began a daily service between Montreal and St. John's *via* Moncton, Halifax, Sydney, Stephenville and Gander. By reducing travelling time between the two cities from nearly four days to nine hours, this service heralded a new age in the social and economic life of Newfoundland and forged another link with the Dominion of Canada. Although military priorities inhibited civilian use of the service throughout the years of war, the idea of travel by air gradually gained acceptance. In the year of Confederation, nearly 13,500 passengers boarded Trans-Canada Airline planes at Newfoundland airports. Fifteen years later, when air travel had become part of everyday life, the number of boarding passengers had increased to approximately 300,000. Meanwhile, the size and speed of planes in service as well as the frequency of scheduled flights had increased dramatically. From the original 10 passenger Lockheed to the giant Lockheed 1011 Tri-Star carrying 288 passengers, the progression was rapid. Names such as DC3, North Star DC4, Viscount, Vanguard, DC8 and DC9 became as familiar as had been the more romantic names of the old Alphabet Fleet steamers.

Meanwhile, as the developing services of the national carrier gave Newfoundlanders access through interconnecting flights to all parts of the world, the use of light aircraft to end the traditional isolation of

the more remote parts of the Province was undertaken. As early as 1921, Sidney Cotton operated a mail service from Botwood to Fogo, St. Anthony and Cartwright. Although this service was short lived, it was a significant harbinger of future developments.

In 1946, Eric Blackwood introduced a bush service with a Piper Cub aircraft. He subsequently founded Newfoundland Aero Sales and Service which delivered mail, transported patients to hospitals, and provided other emergency services to communities which were isolated during the winter months. In 1949, Newfoundland Aero Sales and Service was incorporated as Eastern Provincial Airways (1949) Limited, the new company continuing as a bush and charter operation. Growth was rapid, and in 1963, the company purchased Maritime Central Airways. The amalgamated line became the largest regional carrier in Eastern Canada.

The relationship between the costs of running an airline and the distances covered by its planes is an inverse one. Thus, regional carriers, which are restricted to short flights, generally find it difficult to maintain competitive fare structures and, at the same time, to operate without subsidy. In this respect Eastern Provincial Airways has been no exception. Restricted to "short haul" flights between St. John's, Gander, Deer Lake, Stephenville, Goose Bay, Churchill Falls and Wabush and to even shorter flights between airports in the Maritime Provinces, the airline has operated continuously within the high cost zone. In those circumstances, governments and regulatory agencies have had to decide whether to permit a fare structure that would be sufficiently high to offset the extraordinary costs, to provide direct subsidies, or to allocate certain long distance direct service routes on which higher profits would eliminate or diminish the subsidies required.

Though this particular dilemma was not satisfactorily resolved, the service provided by Eastern Provincial Airways remained an essential element of the provincial transportation system. Furthermore, the choice of Gander as the operation base of the airline served for a time to cushion the effect of that airport's declining importance in the international context. Gander, with the introduction of long range jet aircraft, ceased to be the "crossroads" of the North Atlantic although its status as Newfoundland's only international airport was preserved and its function in terms of Atlantic air traffic control was enhanced.

In the decade of the 1960's, the growing economic and social significance of rapid communications at all seasons, of regular mail deliveries, and of accessibility to medical facilities, led to the development of other air services, in addition to those provided by the national and regional carriers. The Provincial Government itself developed and maintained a small fleet of aircraft, including helicopters, while several local com-

panies were created to provide service to communities beyond the reach of the larger airports. These included Gander Aviation, Newfoundland Air Transport and Labrador Airways. These, operating scheduled, as well as chartered flights, combined with many private planes to bring virtually every Newfoundlander to within a few hours travelling distance to any part of the Province. This service alleviated the particular problems arising from the age-old isolation of regions such as the Labrador Coast. Nevertheless, there were still periods of the year when fixed wing aircraft could not operate—when, for example, ice, which was still unsafe for ski-equipped planes, made operations with floats impossible. To remove this final obstacle to year round communication, plans were conceived to develop all-weather landing strips at strategically located sites along the more isolated stretches of coastline.

To complete the survey of the historical development of transportation in Newfoundland, we turn, briefly, to the pattern of extra-Island traffic, particularly in the realm of direct water movement of freight and passengers.

As indicated above, in the years after the commencement of a fishery in Newfoundland, external trade of the colony was conducted largely by privately owned ships trading with continental North America, with the West Indies and South America, and with Europe.

In the twentieth century the traditional pattern of trade associated with the fishery was augmented by paper and mining companies which developed their own systems for delivering their products to world markets. Meanwhile, the nature of the Colonial Imperial connection was such that the bulk of all manufactured goods sold in Newfoundland was imported directly from the United Kingdom.

In recognition of the importance of the trade with the United Kingdom, on the one hand, and with the New England States on the other, the Furness Withy Company operated a weekly passenger and freight service from Boston to Liverpool *via* Halifax and St. John's. The ships on their run, the 'Newfoundland' and 'Nova Scotia', before the days of trans-Atlantic air travel, carried most Newfoundlanders who journeyed to Europe and many who went to the United States.

Confederation with Canada effected an enormous change in this pattern. From the early 1930's some traffic had moved from Central Canada by direct water services, the most established of which was Clarke Steamships. During the 40's and 50's this traffic continued but increases were minimal because of the competition of the highly subsidized rail ferry route. From 1949 onward, therefore, virtually all food and manufactured goods imported to this Province came from Central Canada with by far the highest

proportion by railway and Gulf ferry. Soon the St. John's to Liverpool and St. John's to Boston services were reduced considerably and although unscheduled freight services in some cases continued, the regular scheduled runs and the passenger service were discontinued in the late 1950's.

From the foregoing history of transportation in Newfoundland, a change may be perceived, or at least an attempt at change, of people's economic and social orientation from a maritime focus to a continental one. Such a change could not be possible without roads, the railway and air services. This thrust towards reorientation was clearly most pronounced in the two decades immediately following Confederation. The Liberal Party's manifesto for the 1966 election was entitled "Building New Highroads to a Better Life", thus giving as clear an indication as might be of Government's commitment to the idea that land communications were the *sine qua non* of economic growth and industrial expansion.

It was at this time that the government of the Province paused to assess what had been accomplished and to establish priorities for the future. By Order in Council, dated December 8, 1964, a Royal Commission on Transportation was established under the chairmanship of the Honourable P. J. Lewis. The terms of reference required the Commissioners "to enquire into all commercial aspects of transportation including Railway, Trucking, Steamships, Coastal Boats, Air Transportation and Air Cargo, affecting the economy of the Province, to report thereon and to make such recommendations with regard thereto as may appear to the Commission to be desirable."

The Lewis Commission, having assessed the existing situation, and having made certain predictions respecting future growth and development, submitted recommendations in seven specific areas. They may be summarized briefly as follows:

1) *that a Department of Transportation should be created, supported by a Board of Advisors representing all facets of transportation and communications, with the objective of providing appropriate liaison and co-operation among all branches and levels of government concerned with transportation and communications and of replacing the ad hoc approaches of the past with conscious planning for the future;*

2) *that heavier rail should be installed along the main line of the railway and that other improvements respecting freight handling and passenger accommodations should be undertaken to upgrade the service offered to an acceptable Canadian standard; that branch lines should be replaced with modern all-weather highways; and, that the special interests of Newfoundland should be protected in respect of federally established freight rate formulae;*

3) that standards of service on the coastal boats should be carefully monitored and controlled but, especially, that ways should be sought to replace, insofar as possible, the coastal boat service with good highways with particular attention to the southwest coast, the Burin Peninsula, the Bonavista Peninsula, the Gander Bay and Strait Shore area, and the Great Northern Peninsula;

4) that the Labrador coastal service be expanded and improved to provide adequate cargo and passenger facilities and to make provision for the transport of motor vehicles;

5) that, in addition to the roads referred to in 3 above, an all-weather highway should be constructed from the Strait of Belle Isle region to Goose Bay and thence across Labrador to Labrador City-Wabush and that this road system should be connected to the Island highway system by way of a tunnel under the Strait of Belle Isle; that the existing roads up the Southern Shore to Trepassey and to St. Mary's Bay via the Salmonier Line should be upgraded; that a road should be constructed along the north shore of Bonavista Bay to link with the Gander Bay-Strait Shore road; that a causeway to Twillingate should be constructed; that a number of access roads to assist development of the forest industry should be constructed; and that earnest and active consideration should be given to the construction of a highway from Buchans to the Bay St. George area;

6) that adequate port facilities should be constructed or improved not only at Argentia, Port aux Basques and St. John's but at Corner Brook, which should have top priority for the future, at Botwood and at Lewisporte; that freight rate subventions and other subsidies should be extended to companies operating steamship services between Newfoundland and mainland ports and that ways and means should be investigated to encourage water carriage around the Newfoundland coast in local bottoms;

7) that the Federal Government should establish a Regional Carrier Air Policy with a view to assisting Eastern Provincial Airways and other local carriers to continue providing vital services in high cost areas; that steps should be taken to develop landing facilities as an alternate to those at Torbay; and, that adequate ground transportation should be provided between Gander and Grand Falls for airline passengers.

Taking those recommendations as a sort of Provincial prospectus for the development of transportation services during the decade just past, let us now look briefly at the situation in 1976 as compared with that upon which the Lewis Commission based its recommendations.

By 1976, a provincial Ministry of Transportation and Communications had been created and had been functioning for some years. The Department did provide for liaison with Ottawa although not as effectively, perhaps, as had been hoped. The Advisory Board had not been established. Whether for this reason or for others, the Department had not been notably successful in achieving effective co-ordination of Provincial, Federal and private activities in the spheres of transportation and communications, nor was there clear evidence of sound overall planning.

In respect to the railway, there were, in 1966, 547 miles of main line railway track of which 190 miles were of heavy, 85 pound rail. Additionally, there were branch lines to Argentia, Bonavista, Carbonear and Lewisporte and a privately owned rail line to Buchans. On the main line, summer schedule passenger service consisted of six daily trips per week from St. John's to Port aux Basques and return, the journey in each direction requiring approximately 24 hours. Fall and winter schedules consisted of a tri-weekly service with departures from St. John's and Port aux Basques on alternate days. Freight service included several runs per day in each direction and special trains as required, moving 455,000 tons of incoming freight. This represented 67% of the total and an additional 600,000 tons of intra-Island traffic. In its total operation in Newfoundland, CN rail gave employment to 1300 workers.

In 1976 the 547 miles of main line track remained, but the proportion of heavy rail had been increased to 350 miles. The branch line to Lewisporte no longer carried traffic and the private line to Buchans had been closed out. On other branches the number of weekly runs had been reduced considerably. Passenger service on the rail had been eliminated completely and freight movement had been reduced to one train per day in each direction. In 1976, the rail carried 425,000 tons into Newfoundland which represents 44% of the total traffic, while intra-Island rail traffic had declined to 400,000 tons. The number of employees in the rail service had dropped to 1213.

Meanwhile, there had been a large increase in volume and considerable improvement in facilities on the Gulf service. That service in 1966 consisted of three vessels, the 'William Carson', the 'Lief Eiriksson' and the 'Patrick Morris', transporting over 100,000 passengers and 176,000 tons of freight. In 1976 Gulf service was provided by 8 vessels. Two of these, the 'Marine Nautica' and the 'Marine Atlantica' were each capable of carrying 300 cars and 700 passengers and they were joined during the summer months by the 'Stena Nordica' which had a similar capacity. Other ships on the service included two rail car ferries, the 'Frederick Carter' and the 'Sir Robert Bond'; the 'Ambrose Shea' and the 'Marine Cruiser', each with a capacity for carrying passengers, vehicles

and trucks. The last two were operated during the summer between North Sydney and Argentia.

In 1966 virtually all of the freight coming into Port aux Basques was unloaded manually from standard gauge rail cars in North Sydney, shipped across the Gulf and then reloaded manually into narrow gauge cars at Port aux Basques. By 1976, as a result of the introduction, in 1967, of the truck to truck transfer methods, the operation had been considerably streamlined. Standard gauge cars were carried directly across the Gulf by railcar ferries, lifted in Port aux Basques from the standard gauge wheels and replaced on the narrow gauge wheels suited to the Newfoundland rail line. This operation increased both speed and efficiency since it involved no manual handling of the cargo. In 1976 approximately 67% of the rail cars coming to Port aux Basques were actually handled by the truck to truck method.

The decade had also seen considerable expansion of and improvement to the provincial road system. In 1966 there were 4652 miles of road of which 1009 miles were paved; in 1976 there were 5570 miles of road of which 2820 miles were paved. The apparent anomaly of such a relatively small increase in total road mileage resulted from a major rebuilding programme which saved considerable distances by a process of straightening existing roads. Newly built or improved roads included the road linking Argentia with the Trans Canada Highway; the road from Goo-bies to and around the Burin Peninsula; the road from Clarenville to Bonavista; major portions of the road from Gander to Gander Bay and around Cape Freels to Gambo; the road to Baie Verte; the road linking Bay D'Espoir with the Trans Canada Highway near Bishops Falls, and approximately 80 % of the road from Deer Lake to St. Anthony. The major recommendations of the Lewis Commission with respect to the southwest coast were as yet unfilled and, with the exception of a few miles of road linking settlements on the Labrador side of the Strait of Belle Isle, the situation in Labrador remained essentially unchanged. However, a tote road from Goose Bay to Churchill Falls and on to Esker on the Quebec North Shore and Labrador Railway gave promise for the future.

These developments, while diminishing the importance of the coastal boat service, *did not* eliminate its necessity. In 1966 two coastal boats were employed year round on the south coast, and two from May to December on the northern service: one, during the summer season on the run from St. John's to Nain *via* Lewisporte and Goose Bay, and one on direct service from St. John's to Nain. In 1976 the South Coast service had been modified to include the two high-speed vessels, the '*Marine Runner*' and the '*Marine Sprinter*', both of which were capable of making the 170 mile round trip from Port aux Basques to Ramea

in daylight hours. In addition one other vessel operated through the year between Argentia and Port aux Basques. The northern service still included the runs from Lewisporte to Goose Bay and from Goose Bay to Nain but, most significantly, had been expanded to include once a week service by the '*William Carson*' from St. John's *via* Lewisporte, St. Anthony and Cartwright to Goose Bay. The '*William Carson*' provided facilities, not only for passengers and freight, but also for private vehicles.

It should be noted, however, that while regular coastal vessel routes were phased out as the highways reached previously isolated settlements, new services were necessary to meet the needs of the few Island communities that continued to survive, especially in Bonavista Bay and Notre Dame Bay. Among those, Greenspond, Fogo and Little Bay Islands could be reached by road only if major causeways were constructed. Although proposals for such causeways were discussed, presumably because of the large capital cost involved, the Province did not adopt that approach. Nevertheless, transportation services had to be provided to those communities even though, in view of their small number, a coastal boat service would be no longer practicable. The eventual solution to this problem was provided by the introduction of "intra-Island ferries" which linked Island communities with the nearest or most convenient settlement served by highway (e.g., Seldom on Fogo Island to Carmenville). These ferries were accepted as a substitute for a coastal boat service and received, in consequence, an annual subsidy from the Federal Government. The objective was to provide for the transportation of freight, passengers, mail and motor vehicles at reasonable rates which would not leave Island communities at a gross disadvantage *vis-à-vis* their mainland neighbours.

Meanwhile, there had also been improvements in the direct water movement of freight from the mainland to Newfoundland. In 1966, this service had been restricted to a weekly service by Clarke Steamships operating between Montreal and St. John's. In 1966, Newfoundland Steamships also operated conventional ship services to Corner Brook and to Botwood (subsidized). Also three subsidized conventional ship services operated from Maritime ports. These were: Newfoundland Canada Steamships Ltd., Halifax-St. John's; H. B. Dawe Ltd., Halifax-Cupids; and North Shipping and Transportation Ltd., Charlottetown-St. John's. By 1976 the Newfoundland Steamship Service had grown to a tri-weekly subsidized one. Additionally, by early 1977, Harvey and Company provided a once weekly service from Halifax, while Crosbie and Company offered a nine-day container service from Montreal to St. John's. Neither Harvey's nor Crosbie's were in receipt of subsidies for their operation.

During the decade under consideration, port facilities at St. John's, Port aux Basques, Corner Brook and Argentia were upgraded. Major developments were undertaken at Port aux Basques to accommodate the increasing number of large ships using the port and to accord with the specialized functions of some of those ships. At St. John's a major reconstruction had been completed to provide landing facilities for specialized side loaders and additional docking space. Nevertheless, the development had not included the provision of all the facilities essential to efficiency and local interests bewailed the omission, in particular, of a special dock for the handling of containers and a synchrolift.

At Port aux Basques, despite substantial expenditures, conditions remained unsatisfactory in respect to the space available for maneuvering the larger vessels when high winds prevailed. Conditions at Argentia appeared adequate for the limited use made of them, while a sideloading facility had been constructed and was in place in Corner Brook in 1976. Further developments in Corner Brook are still in the planning stage.

In 1966 air service was provided to Newfoundland by Air Canada and Eastern Provincial Airways (EPA), together with local carriers, such as Gander Aviation, Labrador Airways and Newfoundland Air Transport. In 1976, air transportation to Newfoundland was still being provided by Air Canada and EPA, but EPA had taken over virtually all of the intra-Newfoundland traffic. Regional carrier service was still being provided by Labrador Airways and by Gander Aviation. The principal recommendation of the Lewis Commission with respect to the establishment of a Regional Carrier Policy had, however, not been implemented.

In short, the Lewis Commission Report met with a kinder fate than that accorded many other Royal Commission Studies. A substantial number of its recommendations were either acted on directly or implemented more gradually as concomitants of other developmental processes. The result was that between 1966 and 1976, a considerable improvement of the road system had taken place in Newfoundland. This improvement was made more substantial, perhaps, than the Commissioners expected and was a result, in a large part, from unanticipated expenditures of over \$150 million by the Federal Department of Regional Economic Expansion (DREE). Similarly, improvements in the Gulf Service undoubtedly exceeded the expectations of 1966, while the significance of the coastal service did, indeed, decline as new roads were built and old ones improved.

On the other hand, the prediction of an increasingly important role for the railway was not fulfilled. In fact, rail service was considerably reduced. The proportion of freight coming into the Province by rail declined in the decade under review from 70 % to 45 % of the

total. This decline was related, partially, to the decision to award to Newfoundland Steamships a freight subsidy which rose from \$7.00 per ton to \$15.64 per ton. This development, together with the extension of the service to a virtual year-round operation, has made direct sea shipment an attractive alternative to shipment by rail. Also, a rapid increase in the number of tractor trailers operating across the Gulf has occurred, undoubtedly due to the completion of the Trans Canada Highway and the acquisition of Gulf ferries which have the capacity to carry large tractor trailers. In 1966 only 2% of the traffic coming into Newfoundland moved by truck; by 1976 this proportion had increased to over 27 %. The process of diminishing railway use was hastened, of course, by the decision of CN management to eliminate all main-line rail passenger service.

During the decade between 1966 and 1976 the Newfoundland transportation scene was a particularly active one. In addition to the exciting developments referred to above, a veritable plethora of studies related to Newfoundland transportation has been specific to particular problems or areas of interest. Among them we may note the voluminous *Newfoundland Mainland Transportation Study* of 1972 consisting of some 20 volumes compiled by Transport Canada in collaboration with the Canadian Transport Commission (CTC), DREE, Canadian National and several consultants. The study is still an extremely useful compendium of essential information (much of which, however, needs updating) and, in fact, resulted in significant improvements on the Gulf service.

A second major study was the *Trans-Newfoundland Corridor Transportation Study* of 1974, conducted by Kates, Peat, Marwick and Company on commission from the Canadian Transport Commission. This study, although valuable as an inventory of the transportation system within the Port aux Basques-St. John's corridor, led to no significant action.

Slightly more positive results flowed from the twelve volume *Newfoundland Coastal Study* of 1974, which was conducted by Transport Canada—Marine and Ferry Division and which remains a valuable source of information.

Other studies which have resulted in some operational adjustments include the *Russell Lake Report* of 1970 and the *Newfoundland Coastal Rates Study* of 1976.

Still others, which together constitute important collections of pertinent data, but whose recommendations have not yet been implemented or have been ignored include the *Corner Brook Development Study* of 1976, conducted by Peat, Marwick and Partners and FENCO, for the Government of Newfoundland in collaboration with Transport Canada and DREE: the *Burin Peninsula Port Selection Study* of

1974, conducted by T. J. Dalton for Transport Canada; *A Transportation Needs Study*, Newfoundland/Labrador of 1970, conducted by P. M. L. Pearson for the provincial Department of Community and Social Development; Volume IV of the 1974 *Royal Commission on Labrador*, conducted by Donald Snowden for the Government of Newfoundland; the *Quebec-Trans Labrador Highway Report* of 1974, by R. J. Noah and Associates for the Newfoundland Department of Transportation and Communications; the *Labrador Area Master Plan* of 1975, prepared by the Air Administration Division of Transport Canada; the *Newfoundland STOL Study* of 1973, conducted by Kates, Peat, Marwick and Company; and the *Newfoundland Ferry Services Study* of 1974, conducted by Acres Consulting Services Limited for the CTC. Two additional studies of a major nature, currently in progress, are a *Study of Transportation in Coastal Labrador* which is being conducted by the Air and Surface Administration of Transport Canada, and a study jointly sponsored by Transport Canada, CN and Newfoundland entitled *Newfoundland Transportation Systems Evaluation*. (This latter study has been interrupted while the Commission carries out its work.) A complete bibliography would list, in addition to all of these, a large number of internal working papers, confidential cabinet documents and detailed studies of very specific issues.

Notwithstanding this vast accumulation of information, plans, proposals and recommendations, nothing that could be labelled definitively as a master plan for overall development has to date emerged. Yet such a plan is an imperative necessity, even though the transition from plan to actuality may well be beyond the capacities of the Province, unless a case for special assistance can be sustained.

The Special Case for Newfoundland

The Commission must, therefore, examine the special case which can be offered to support the spending of additional amounts of money on the development of Newfoundland transportation.

In building up its case the Commission will draw heavily on the general rationale concerning Canadian transportation presented by the MacPherson Commission of 1961, and on the special case for Newfoundland proposed by that Commission.

The Commission must first of all admit that certain economists and developmental geographers have argued that to develop an elaborate infrastructure for the purpose of encouraging unspecified forms of economic advantage will lead axiomatically to specific kinds of industrial growth and development which will generate, of themselves, both the requirements for and the means toward the building of the roads, the railways and the other elements of an appropriate transportation and communications network. The

corollary of this proposition is, perhaps, that the development of transportation infrastructure should proceed only from actual economic development or from potential development so imminent that optimum traffic utilization will ensue immediately upon completion of construction.

But such an approach is directly contrary to the whole trend of Canadian history and development. Indeed, the Canadian "national dream" is the story of the development of transportation systems to overcome the liabilities of geography and to weld together the geographically disparate parts of a vast land to create a national unity. In the words of the MacPherson Report,

No part of Canada has prospered until it had good transportation facilities. The history of Canada is replete with examples of massive public spending on transport facilities, such as canals, railways and more recently, highways and airports. Indeed, the dollar value of such public investment continues to rise.

No Canadian government has, in fact, ever sought to deny the proposition that public investment in transportation facilities is a duty imposed by the necessities of national development. To again quote from the MacPherson Commission,

By means of massive public assistance in capital structures, by grants and other devices, government, often in partnership with private enterprise, has assured the provision of transportation facilities in areas where the potential volume of traffic was at that time insufficient to warrant the provision of facilities by ordinary commercial criteria. The results fully justified the means.

But in more recent years, Canadian governments have gone beyond the concept of national development as implying merely the strengthening of the central regions irrespective of what the effects might be in the peripheral provinces. Increasingly, since 1925, Ottawa has recognized what Newfoundlanders now identify as regional disparity and, with regard to the Atlantic Provinces, has, since that time, conducted numerous studies and sponsored several commissions in an attempt to discover how disparity may be ameliorated.

Over the years special measures have been implemented, some of them directly related to transportation (such as the expenditures negotiated through DREE). Such measures have met with varying degrees of success, but have not eliminated or reduced to any significant extent the economic problems of the Maritime area.

In addition to the general problems which Newfoundland shares with the other Atlantic Provinces, there is no doubt that Newfoundland experiences additional and specific difficulties associated with both transportation and economic development.

The MacPherson Commission states the case as follows:

The situation in Newfoundland is a special case distinct from the rest of Canada. Because of the lower level of the economy as compared with the rest of Canada and because of its geography, transportation costs are high and the people concerned cannot yet assume the full cost of moving goods from the mainland to the Island. Furthermore, the total tonnage of goods to be moved is relatively small thus making it difficult to achieve the economies of scale which can be achieved in other areas. Under these circumstances, the objectives of transportation policy should be, in the short run, to develop, mainly by organization, the lowest cost transportation possible, so that, in the long run, a system can be developed that should enable the people concerned to pay the total cost involved. This is in contrast to the rest of Canada where we believe that low-cost transportation can best be achieved by competition. The situation to Newfoundland is such that it may prove necessary in the short run to limit competition, to favour by subsidization or special treatment one mode against another and to do other things that would be totally unacceptable in other parts of Canada.

The Report continued with the warning that:

...demand for transport from the Mainland to the Island will increase. Since it is doubtful that the rail-ferry-rail route can ever become self-supporting, it is recommended that further capital expenditures on this route should be scrutinized most carefully before being authorized. Every effort should be made to find alternative, less costly means of transport.

It went on to reach the following specific conclusion:

The present transportation needs can best be met by a system of roads and highways throughout the Island. These should be planned in consultation with the potential users, especially users of forest products, and designed not only to link up existing settlements but also to open up the country so that the resources can be utilized. User charges should be levied which in many cases might meet most of the cost involved.

Such a system of roads would greatly lower the cost of distributing consumer goods and would be especially valuable in handling containers arriving by ship, rail or air. It would also allow for the phasing out of the coastal steamers operating at the considerable loss of nearly \$3 million a year.

A highway network of the size necessary is beyond the present resources of Canadians in

Newfoundland. The situation calls for assistance by the Federal Government and there are enough precedents for such a program. Public works to stimulate the economy of a province or an area have been a continuing part of national policy in Canada. For example, assistance in constructing power plants and irrigation systems as well as transportation facilities in all parts of Canada can be cited. What canals and locks did for the economy of the Central Provinces, what the transcontinental railways did for the Prairies, highways can do for Newfoundland.

We are convinced that such a program is in the national interest. It would stimulate the economy of the Island with attendant benefits to the rest of Canada. All this could be accomplished in a short time with a relatively modest outlay of public funds.

Although this Commission would question the concept of user charges for the road system proposed by MacPherson, it is unfortunate that more attention was not paid to the MacPherson Report when major decisions concerning Newfoundland transportation were made. The MacPherson Commission argued in essence that:

1. Newfoundland should be excluded from basic transportation policies which are appropriate for the other regions of Canada, and should be treated as a special case.
2. Transportation policy in Newfoundland should encourage the development of direct water movements from the mainland of Canada to Newfoundland. Facilities requiring major capital expenditures on the Gulf crossing should be examined with great care before being authorized.

Events since 1961 have demonstrated that not only have relatively few of MacPherson's recommendations concerning Newfoundland been followed, which is in itself regrettable, but, in fact, subsequent decisions and actions have, to a large extent, been directly in conflict with MacPherson's recommendations, which is far more serious. Newfoundland has not been treated as a special case. General policies have been forced on the Newfoundland situation on the one hand, and major capital expenditures have been authorized for the Gulf on the other hand. It is not surprising, therefore, that 17 years after the MacPherson report and despite expenditures which total in excess of several hundred million dollars, many problems of the Newfoundland transportation system remain unsolved.

Let us examine the present situation in greater detail. Our brief historical summary has suggested a piecemeal approach since 1825 that has, nevertheless, resulted in a transportation network that provides access for the vast majority of the population to a provincial road system; that provides marine ferry

connections to mainland railways; that provides a subsidized direct sea freight service from Montreal; that provides coastal boat service where roads have not yet been built; and that provides, to a majority of the people, reasonable access to air services.

And yet, impressive as this catalogue may at first appear, closer examination will reveal a list of deficiencies of staggering proportion. Nearly half the total mileage of Provincial highways is unpaved and, in Newfoundland such roads are, for a substantial part of each year, in extremely poor condition. The main trans-insular highway, the Trans Canada Highway, was built to near minimum standards and with the growth of heavy traffic in the last decade has deteriorated rapidly so that it now requires major upgrading over its entire length. The southwest coast between Bay D'Espoir and Rose Blanche is still totally dependent on transportation by sea. The major towns of western Labrador have no access by road to any other part of Canada. The coast of Labrador is dependent upon inadequate coastal boat service which, because of ice conditions, can rarely provide more than four months of uninterrupted service in any year. For the other eight months the people must depend upon an air service which, in the absence of landing strips is, at best, intermittent and unpredictable.

Rail freight service, though vastly improved in recent years, still suffers from inefficiencies built into the capital structure and, despite subsidies, is still extremely costly. Passenger services on the Island are inadequate, while accommodations on coastal boats and on Gulf ferries are insufficient. Docking and harbour facilities are poor. In short, it is clear that in many areas standards do not conform to minimally acceptable Canadian levels.

Having established the need, the Commission must now assess the Province's capacity to satisfy it. It should be noted, first of all, that the total population of Newfoundland and Labrador is just over one half million. Considering the dispersal of settlements along 10,000 miles of coastline, the nature of the topography of the Province and the inclement weather, the costs of roads alone are, on a per capita basis, staggering. Consider, for example, the simple fact that only one other province in Confederation has a longer section of the Trans Canada Highway than Newfoundland. It can be shown, that even with a 90 % federal subsidy, the per capita cost to Newfoundland-

ers will still be higher than in some richer and more populous areas. By the same token, the pattern of human settlement in the Province of Newfoundland and Labrador necessitates a road network inordinately long in relation to population. It also requires construction through coastal terrain which is the most difficult to be found within the Province. It cannot be denied that these roads are essential, if only because of their social utility; but, additionally, they provide the basic infrastructure for the kind of resource based economic development that represents the best hope for the future. Once again, the task of providing such a road network connecting with the Trans Canada Highway and with major ports of entry to the Province, and providing an adequate service to coastal and western Labrador is, in terms of the size of the Newfoundland population, herculean. For a people already bearing the highest tax burden in Canada, the strain upon provincial resources would be intolerable. And the argument applies equally to other forms of transportation as well.

The Commission turns now to the question of the level of social service that Newfoundlanders, as Canadians, ought to expect or, indeed, to demand. It would seem obvious that, in equity, they have a right to expect services no less adequate than those generally accessible to most Canadians. And yet, these expectations, generated by the act of becoming Canadian, have not been satisfied. Newfoundlanders are still the poorest of the Canadian poor; they have the highest unemployment rate in Canada; they have the highest cost of living in Canada; their economy is still underdeveloped; some of their resources are exploited to the advantage of others; their renewable resources are still underutilized or not utilized to their best advantage; they are still required to live with levels of service that in other regions of Canada would be intolerable; and they still, despite transfer payments, pay more in the form of taxation, for the privilege of being Canadian, than any other of their fellow citizens.

In short, whether one examines the case from the point of view of national development or of regional disparity, economic necessity or of social policy, or whether one considers only the interests of justice and equity, the special case for Newfoundland is unassailable. The additional matter of the constitutional obligations of Canada towards Newfoundland will be discussed in the next chapter.

Chapter II

The Constitutional Question

By Section 3.2 of the terms of reference of the Inquiry, the Commission is obliged to “note the Terms of Confederation and the constitutional obligations of the Government of Canada to Newfoundland related to transportation” and to “consider their current impact and application and the extent to which they may influence cost effective solutions” to the transportation problems of the Province of Newfoundland.

The general constitutional obligations of the Federal Government toward the Province of Newfoundland, in the field of transportation, are the same as those relating to each of the other provinces, and are contained in Section 91 of The British North America Act, as that section is qualified by Section 92. While the provinces have the right to control commerce and trade, including matters of transportation, within their respective borders, Canada retains, under Section 91, general jurisdiction in all areas not specifically assigned to the provinces by Section 92. In addition, Sections 91 and 92 give Canada certain specific jurisdiction in areas such as shipping and navigation, interprovincial ferry and ship connections, interprovincial railways and others.

Applied generally, the constitutional obligations and powers provide that each province has sole legislative jurisdiction and authority to control transportation matters that are primarily concerned with property, trade and commerce within the borders of the Province. Canada has sole legislative jurisdiction and authority to control transportation matters that are primarily, and in essence, concerned with interprovincial traffic or movement, and movement between a province and a foreign country. It is the interprovincial aspect of the federal authority which is most relevant for the purposes of this Commission.

Perhaps the best example of the practical interaction between the two legislative authorities in the transportation field is the federal and provincial legislation governing the carriage of goods and passengers by motor transport. Both governments have separate statutes providing generally for regulation of entry into the motor transport field, and governing schedules, types of service and the setting of rates for carriage. Since the Province has legislative authority to control only intra-provincial commerce and traffic, its laws have applicability only to that portion of motor carrier operation related to purely intra-provincial carriage. Canada, on the other hand, has legislative authority to control only motor carrier services operating between one province and another. This has the theoretical effect that for two separate shipments of goods loaded, say, at St. John's on identical vehicles owned by the same carrier, a shipment destined for final delivery within the Province is governed by provincial legislation, while the shipment destined for ultimate delivery in Halifax, Nova Scotia, is governed by federal legislation. By designating the provincial Motor Carrier Boards to be as well the regulatory arm of the Federal Government, that Government has provided a mechanism whereby the regulation and control of these two classes of carriage can be and are closely related and co-ordinated. In this way, operational difficulties arising out of the separate jurisdictions are minimized.

Nevertheless, the Commission notes that an exception to this principle has been made in the recent federal decision to remove from the Board of Commissioners of Public Utilities for Newfoundland, which acts as the provincial regulatory body, the authority to regulate the operations of the CN Roadcruiser service

in Newfoundland. This step may have been theoretically justified on the basis that the courts had held the CN bus service to be, in effect, an integral part of the CN rail operation in Newfoundland. However, the practical effect was to divide between two entirely distinct and unrelated bodies, the Federal Canadian Transport Commission, and the Provincial Board of Commissioners of Public Utilities, the regulatory control of the total passenger bus system in Newfoundland, comprising the CN operated "corridor" service and the privately operated intra-provincial "feeder" lines. This can only make more difficult the establishment and operation, through regulation, of an efficient and co-ordinated bus network in Newfoundland.

Having said this, the Commission is nevertheless of the opinion that generally the division of legislative responsibility between Federal and Provincial Legislatures in relation to the field of transport has not in the past caused serious difficulties between the provinces and the Federal Government. It appears that the intentions of the framers of The British North America Act were fairly clear in this regard, and that the Provincial and Federal Governments, have, during the course of time, worked out practical arrangements between themselves to ensure that no constitutional violation occurs, while at the same time permitting the total transportation system to operate unaffected to any serious degree by limitations imposed by the constitution.

In examining the constitutional authority of governments under The British North America Act, it is important to realize that the mere fact that a government retains legislative jurisdiction in any field does not commit that government to provide specific services within that jurisdiction, but merely permits the control of such services as may be established from time to time. In the transportation field, since that area has been considered of paramount importance in the development of Canada as a whole, it has been generally accepted by both Federal and Provincial Legislatures and Governments that each had a public duty and responsibility to provide, or to ensure the provision of, at least a minimum of service within the areas under its jurisdiction. Thus the Federal Government, through mechanisms including establishment of Crown corporations and the provision of subsidies and facilities, has been actively involved in the provision of transportation services between provinces. The provinces as well have invested sums of money on roads, wharves and the like to provide services to the general public. Nevertheless, in some instances, the establishment and provision of particular modes of service, and of services within modes, has been left to private enterprise, acting under the legislative control of the government concerned.

It is in the contents of the "contract", or Terms of Union of Newfoundland with Canada, that the Federal

Government assumes specific and unique obligations and undertakings relating to transportation in Newfoundland. When Newfoundland became a part of Canada it did so on the basis of a contract signed between two sovereign governments. Under the terms of this contract, the contents of which are incorporated into The British North America Act, each legislature and government undertook specifically, or by necessary implication, certain obligations, in addition to assuming legislative jurisdictions. Thus the Province retained some obligations regarding provision of public services to its people, and the Federal Government took over other obligations. There was nothing unusual or unexpected in such an arrangement, since the federal nature of Canada made it clear that any confederation between the two countries would require that the Federal Government take over some of the jurisdiction previously exercised by Newfoundland.

In the field of transportation, the Federal Government undertook, among other things, certain responsibilities concerning the water connection across the Gulf of St. Lawrence and the operation of the Newfoundland railway system, including the coastal service which had been an integral part of that system prior to Confederation. The relevant sections of the Terms of Union specify that:

31.....

Canada will take over the following services and...relieve the Province of Newfoundland of the public costs incurred in respect of each service taken over, namely, (a) the Newfoundland railway including steamship and other marine services;

32(1)

Canada will maintain in accordance with the traffic offering a freight and passenger steamship service between North Sydney and Port aux Basques, which, on completion of a motor highway between Corner Brook and Port aux Basques, will include suitable provision for the carriage of motor vehicles.

As well, under the provisions of Section 31 of the Terms of Union, Canada assumed ownership and control of Gander Airport.

An examination of the history of Newfoundland in the first half of the twentieth century will reveal why Newfoundland insisted that Canada should assume responsibilities for the railway and coastal operations. Since the Gulf operation constituted an interprovincial ferry service it was, in any event, an area of jurisdiction within the sole authority of the Federal Government under the provisions of Section 91 of The British North America Act.

The history of the railway and coastal services, including the Gulf connection, had been one of continuing and generally increasing deficit and loss. The small country of Newfoundland had undertaken the

construction of what has been described as “not a first class” railway, to aid in economic development of the Island, to link some major population centres, and, it is supposed, because practically every other developed and semi-developed country in the world was frantically building railways during the last half of the nineteenth century.

It is generally accepted that the cost of construction of the Newfoundland railway was a crippling financial burden on the economy of the country, as was the cost of its operation, practically from the day of its completion. The railway was transferred from private ownership and operation to Government ownership and control in 1923. Examination of certain records and reports of the time shows that even under private ownership, considerable sums of money were lost on the operation of the railway, although its fortunes improved somewhat during the busiest years of the Second World War. It was, however, apparent, even before the cessation of hostilities, that railway operations were beginning to revert to the old pattern of continuing loss. Indeed it was estimated by the Committee on Transportation and Communications of the National Convention that considering all the net benefits and detriments, including revenues from taxation on equipment and services consumed, the railway had been a drain on the treasury of approximately three-quarters of a million dollars per year, on the average, ever since 1923.

It should be stressed here that such reference to the railway automatically included the coastal service, since, historically, this service was operated as a branch of the railway. It is clear that the coastal service was an essential one, at least as important as a railway across the Island, because of the large number of otherwise isolated coastal communities that still existed.

There is little wonder, therefore, that in the deliberations of the National Convention and its Committee on Transportation and Communications, and in the negotiations between Newfoundland and Ottawa leading to Confederation, the future of the railway and coastal service was of great concern. This concern was deepened by the realization that a relatively large portion of Newfoundland’s workforce was employed in these operations, either directly or indirectly, and it was of vital importance to make no arrangement that would adversely affect their interests.

Therefore, because of the number of persons employed, because of the central position held by the railway and coastal service in providing public transport for the people of Newfoundland, and most of all because of the severe financial burden of the operation of the railway and coastal service, it was a central position of Newfoundland in entering Confederation that total responsibility for the operation and costs of these services must be assumed by Canada. Nor

would this seem to impose a hardship, since through Canadian National Railways, the Federal Government was already providing rail services from coast to coast in the rest of Canada, and the extension of these services across the Island of Newfoundland would appear to be a natural development. Indeed, the national economy, national defence, and other national requirements established a firm rationale for the incorporation of the Newfoundland railway into the federally operated railway system.

Since the Federal Government did not itself actually operate a similar coastal service on either coast of Canada prior to Confederation with Newfoundland, the undertaking to operate the coastal service may seem a less natural one. Nevertheless, this obligation was accepted, presumably because the coastal service was in fact an integral part of the rail operation in Newfoundland.

Meanwhile, during the Second World War, Gander had become one of the major airports in North America and as with the railway, the cost of its operation was deemed to be an intolerable burden for Newfoundland. Since the Federal Government, by virtue of judicial decision earlier in the century, had been held to have ultimate jurisdiction for air navigation, facilities and transport in the country, and since it consequently operated major airports throughout Canada, it was natural that it would accept responsibility for the operation and costs of what was then the only major airport in Newfoundland.

In its examination of the transportation system in the Province, the Commission is satisfied that the area of air transportation has not been a controversial one and that the obligations of Canada under the Terms of Union in relation to air transport do not constitute any unusual constraint on the development of an optimum transportation system. Rather, it is clear that the major area of concern relates to the constitutional obligations to maintain rail, coastal and Gulf operations, as well to the provisions regarding rates for such services.

By Term 31 of the Terms of Union the Federal Government agreed to take over the operation of the Newfoundland railway, including steamship services, and to relieve the Province of the “public costs incurred”. While some have suggested that this obligation, strictly interpreted, requires that no charge be made for the use of the services taken over, the Commission does not accept this view, but holds the opinion that the use of the word “public” clearly indicates that “private” charges for use could continue, but that any deficits resulting from the operations would be absorbed by the Federal Government. This, then, leads us to consider whether there are any restrictions as to what the “private” charges may be.

Section 32 of the Terms of Union provides in part as follows:

32(2)

For the purpose of railway rate regulation the Island of Newfoundland will be included in the Maritime region of Canada, and through-traffic moving between North Sydney and Port aux Basques will be treated as all-rail traffic.

(3)

All legislation of the Parliament of Canada providing for special rates on traffic moving within, into, or out of, the Maritime region will, as far as appropriate, be made applicable to the Island of Newfoundland.

It is clear from these terms and as well from the interpretation of them by the Board of Transport Commissioners following on a reference by Newfoundland in 1952, that as regards the computation and setting of rail rates, the Island of Newfoundland was to be treated on the same basis as the Maritime region of Canada; and further, and importantly, that rail freight crossing the Gulf was to be charged a rate as if the crossing were made on rail, irrespective of the actual costs incurred. This particular provision has resulted in ever increasing subsidies by the Federal Government to rail traffic moving into Newfoundland, since the actual costs of moving such traffic across the Gulf far exceed the allowable customer charges based on movement over ninety miles of rail. It should be noted, however, that the restriction in Term 32(2) requiring that the Gulf crossing is to be regarded as a rail crossing, has no applicability to non-rail movements on the Gulf, and therefore there are no restrictions in that section concerning user related charges for non-rail passengers, or for private and commercial vehicles which do not travel as rail freight.

As well, federal rate legislation applying to traffic in the Maritimes, including rail traffic, was also to apply to the Island of Newfoundland. Thus, The Maritime Freight Rates Act of 1927, and the more recent Atlantic Region Freight Assistance Act are both applicable to the Island of Newfoundland, and provide a mechanism for subsidy to shippers and tariff reduction to consumers.

At this point it should also be noted that Labrador was excluded from these rate provisions under the Terms of Union. It has been suggested that the main reason for this was that at the time of Confederation there was no railway operation in Labrador, and that further, it was not desired to subsidize the movement of raw materials such as ores and timber which might reasonably be expected to constitute the basic traffic within and from the Labrador region in the future. The question as to whether, with the currently existing concept of selective commodity subsidies, it is desirable to extend the Maritime rate legislation to Labrador will be considered later in this report.

It is clear to the Commission that the provisions of the Terms of Union do constitute a constraint on the

ability of carriers, particularly Canadian National as a rail carrier, to charge compensatory rates in the Province of Newfoundland. Regardless of whether special conditions might exist in this Province dictating that users should pay a higher rate, the Terms of Union make it clear that the user charge in Newfoundland must be computed and based on the same principles as those in the Maritime Provinces generally.

The Commission realizes that the anomaly concerning rates for coastal traffic is not resolved or affected directly by the Terms of Union. There were no existing Canadian coastal rates applicable in the Maritime region at the time of Confederation, and yet the rates for coastal traffic in Newfoundland have remained practically static since the 1930's. The effect which this has had on the deficit from coastal operations will be considered later in this report.

Turning now to an examination of the obligations to provide services, a preliminary argument made to the Commission during its public hearings was that by virtue of the specific provisions of the Terms of Union, the Federal Government is obliged and indeed permitted to provide support for traffic moving only between North Sydney and Port aux Basques. It is suggested that the specific reference in Term 32(1) to the maintenance of the Gulf service, by necessary implication excludes federal involvement in or support for any other marine service which might compete with the Gulf route.

The Commission does not accept this submission. It is satisfied that there is nothing in the wording of or intention behind the Terms of Union to prevent the Federal Government from providing assistance to other modes of transport between Canada and Newfoundland, so long as Canada lives up to its obligation to provide assistance according to the provisions of Term 32(1). It can, of course, be argued that any federal support of a competing or alternate service would have the effect of diverting traffic from the Gulf route, and while the Commission accepts that this may be, in fact, the practical result of such assistance, nevertheless the Commission is not prepared to find that the Terms of Union constitute a barrier in this regard. Surely the intention of Confederation was simply to preserve the then existing link with the mainland of Canada in accordance with traffic volumes which might offer on that link. The Commission cannot accept the position that the Terms of Union are intended to prevent federal assistance to other modes of transport which might prove equally or more beneficial to the general public of Newfoundland in terms of cost and efficiency. To take such a position would, in our opinion, constitute a disservice to the people of Newfoundland.

In this connection it should be noted also that the Federal Government has, in actual practice, viewed its obligations to be such as to allow it to subsidize other

modes of transport into the Province. The provision of a federally operated ferry service from North Sydney to Argentia is a prime example, as is the federal subsidy to the direct water service from Montreal to Corner Brook and to St. John's. The Commission is of the opinion that federal support for these services does not violate the Terms of Union, and that these services do not constitute an attempt to artificially reduce traffic offering on the Gulf Service, but rather an attempt to provide additional efficient transportation links to Newfoundland, in accordance with demand and traffic offering on such links.

The Commission is aware, however, that there is a question as to the exact nature and extent of the obligations concerning the continuation of the various services taken over by Canada. Prior to Confederation, the water connection between Newfoundland and Nova Scotia was operated as an integral part of the Newfoundland railway system through the coastal service, and it is clear that simply by taking over the Newfoundland railway and its marine and coastal services, the Federal Government was also responsible for the operation of the Gulf connection. It is therefore interesting and significant to note that Term 32(1) of the Terms of Union sets out an obligation regarding the Gulf service which is not contained in the general provisions of Term 31 concerning the takeover of the rest of the railway system. Term 32 requires the Federal Government to maintain the Gulf service "in accordance with the traffic offering". The recent legal dispute between the Government of Prince Edward Island and the Federal Government concerning the obligation of Canada to maintain a continuous ferry link with that island shows that the legal effect of wording, somewhat similar to that contained in the Newfoundland Terms of Union, is to impose on the Federal Government an absolute obligation to maintain the link, except when disrupted by acts of God, but in the face of strikes, adverse cost conditions, and the like. While the Commission recognizes that in the absence of identical wording and circumstances, the decision in the P.E.I. case cannot be taken as an absolute determination of the Federal obligations to Newfoundland, nevertheless, it is clear that the Courts will not be adverse to a finding that there is, in effect, an absolute obligation, regardless of difficulty, to provide and maintain such an inter-provincial link.

The phrase "in accordance with the traffic offering" does not appear in the general terms of Term 31 regarding the railway and coastal service generally. It has therefore been suggested that there is a difference between the responsibility of the Federal Government to maintain the interprovincial link across the Gulf, and the responsibility for the operation of the intra-provincial rail and coastal services. It has been suggested that the clear contrast between the

requirement, on one hand to "maintain in accordance with the traffic offering", and on the other to "take over" and "relieve the Province of Newfoundland from the public costs incurred", indicates that while there may be an absolute obligation to maintain the Gulf link, no such obligation exists with respect to the rail operation and coastal services, and that in respect of the latter the Federal Government must merely relieve the Province of the "public cost", retaining the power to determine what, if any, services and what levels of service are to be provided from time to time. It is therefore suggested by natural extension of the argument, that should the Federal Government choose on economic grounds to discontinue all or portions of the rail and/or coastal service, even in the face of constant or increasing traffic offering, it could do so as long as such discontinuance did not involve direct financial cost to the Province.

It is interesting to speculate how the cessation of all or part of rail or coastal operations could do anything *but* throw an additional cost on the Province, since it would obviously be necessary to provide additional public transportation facilities for the freight and passengers thus displaced. Thus, we cannot see how the Federal Government could justify discontinuance of these services, except in the case of absence of demand. To do otherwise would allow them, in fact, to thrust an additional public cost upon the Province which would be contrary to the constitutional obligations they have incurred.

During the course of its investigations, the Commission has viewed the contents of a letter, dated coincident with the signing of the Terms of Union, from the Prime Minister of Canada to the head of the Newfoundland delegation and which has been generally included in published documentation related to the Terms themselves. The Commission is satisfied that this letter was provided at the request of the Newfoundland delegation in order to elaborate on and answer certain questions which had arisen during the negotiations, but which were not dealt with fully in the Terms of Union themselves. A portion of this letter reads as follows:

(XTV) *Newfoundland Railway*

After the date of Union, the Canadian National Railways will be entrusted with the responsibility of operating the Newfoundland Railway and Coastal Steamship Services, and it will be their responsibility to see that services are furnished commensurate with the traffic offering.

This statement, together with others contained in the same letter, were prefaced by the Prime Minister with the remark that, "*It would not seem fitting to include in formal Terms of Union matters of this kind, since they are scarcely of a constitutional nature...While these will not form part of the Terms of Union, they contain statements of the policy and*

intentions of this Government if union is made effective..."

While on one hand it can be suggested that the contents of this letter are nothing more than a political interpretation of the Terms of Union and a statement of government policy, on the other hand it can be argued that the letter, having been provided coincident with the signing of the Terms themselves, contains a binding interpretation of the obligations of Canada under those Terms. Certainly, the Commission is satisfied that the contents of the letter were treated by the Newfoundland delegation as of vital importance, and it is clear that the letter was required in order to enable the delegation in conscience to sign the Terms of Union.

The Commission is inclined to take the position that on the whole, the letter constitutes, at the very least, a formal representation on the basis of which Newfoundland entered Confederation. It is clear that this representation was considered to be of great significance and importance by both parties, else it would not have been contained in correspondence dated coincident with the signing. In the circumstances, the Commission takes the position that this letter must be read together with the Terms of Union in order to arrive at the full constitutional obligation and undertaking of Canada. The Commission is of the opinion that any attempt to hold that the obligations contained in the letter are less binding than the Terms of Union themselves would be, at the very least, a great disservice to the distinguished Canadians who took part in the negotiations, and at most, a violation of the contractual terms and arrangements made between Canada and Newfoundland which became effective March 31, 1949.

If the Commission's opinion in this matter is correct, it is clear that the Terms of Union must be considered to be modified to a significant degree by the letter, in that by the letter the operation of the Newfoundland railway and coastal service were placed on the same footing, for all practical purposes, as the operation of the Gulf service and that there is, therefore, an obligation to maintain the rail and coastal services, regardless of cost, as long as traffic reasonably offers and at a level commensurate or in accordance with that offering.

At the same time, the Commission would agree that the preceding statement may be somewhat of an over-simplification. Nowhere in the Terms of Union it is envisaged that those services would be provided *free* of cost. Therefore, the question arises whether, if an economic or specific charge is made, which results in the shifting of demand to other transportation modes and services, the Federal Government would then be justified in discontinuing the service because the demand for it has disappeared. The Commission is of the opinion that so long as the rate charge in

question is based on generally accepted rate making procedures and is in accordance with the special rate provisions contained in the Terms of Union, the vanishing of demand for a service for which such rates are charged is not contrary to the Terms of Union, and that in such an event the Federal Government would be justified in discontinuing a service for which the demand no longer existed.

Again it has been suggested that if the Federal Government could demonstrate that the monies being spent to satisfy a continuing low level of demand would be more beneficially spent on the provision of an alternative service, then it would be constitutionally entitled to discontinue the service with low patronage, provided that the same monies or their equivalent were used for the more beneficial service. This poses a difficult question because under the Commission's interpretation of the Terms of Union, the service must be maintained so long as traffic offers. At what stage it can reasonably be determined that traffic ceases to "offer" in any ordinary and reasonable sense is not defined. The Commission is prepared to accept the proposition that demand could fall to a point where, on the basis of objective criteria, the only reasonable conclusion would be that traffic offering had, for all practical purposes, ceased. The Commission is of the opinion that at such a point the operator would be justified, under the Terms of Union, in discontinuing the services if it chose to do so, provided however, that any cost to the Province of such discontinuance would be reimbursed by the Federal Government.

While the interpretation of the provisions of the Terms of Union has not been tested in the courts, in practice, the Federal Government has in the past discontinued portions of both the coastal and rail services. Over the years, with the coming of roads to many isolated communities, the coastal services have been reduced and in many instances discontinued altogether. This has presumably followed the vanishing of "traffic offering" on such services. In several instances, the Federal Government has provided subsidy support to intra-provincial ferries to service island communities formerly linked by coastal boat but left isolated on the discontinuance of such coastal runs.

Again, in 1969 the Federal Government abandoned the rail passenger service in Newfoundland, substituting a trans-Island bus service for that operation. Lack of traffic offering for the rail passenger service, and the consequent large unrecovered cost of providing such service, was used as justification for the abandonment. From the Commission's view of the Terms of Union as set out above, there is a strong possibility that such discontinuance might have been unconstitutional except in the circumstance where no reasonable traffic could be said to offer for the service.

The fact that no court dispute arose between the Governments in relation to the discontinuance of such services may be a credit to the working relationship between Governments since 1949, but it makes the task of the Commission practically impossible, particularly as to the determination of the obligation of the Federal Government in maintaining the rail and coastal services. The Commission accepts the fact that there are at least two possible interpretations; namely, that there is an absolute obligation to maintain the rail and coastal services in accordance with the traffic offering, or that the federal obligation is simply to prevent cost to the Province arising from such services, without restriction on the ability of the Federal Government to decide on levels or continuation of services. Either of those interpretations could be upheld in a reference to the Supreme Court of Canada. In the circumstances, the Commission is placed in a dilemma: the terms of reference require the Commission to analyze in other portions of this report the effect which the constitutional obligations may have on cost effective solutions to transportation problems in Newfoundland. However, since the constitutional position regarding the absolute obligation to continue, or alternatively, to permit reduction or abandonment of rail and coastal service is not completely clear and free from doubt, no definite decision and recommendations can be made based on a firm and indisputable determination of such obligations.

Having referred to this uncertainty, the Commission reiterates its own view that, under the Terms of Union, the Federal Government is responsible for the maintenance of coastal, Gulf and rail systems, and for assuming all the public costs pertaining to these services, so long as there is reasonable traffic offering. We are further of the opinion that this interpretation would be the one most likely to be accepted in any reference to the Supreme Court of Canada. Therefore, where relevant, the Commission has based its deliberations and recommendations on this interpretation, believing that in doing so, the position taken is supported not only by a legal interpretation of the provisions of the Terms of Union, but equally by what appears to have been the clear intention of the parties at the time. At the same time, and as stated above, the Commission does recognize that other interpretations are indeed possible and that, in particular, the second alternative set out above might be held ultimately to be the correct one. Where specific recommendations of the Commission are predicated on an analysis and decision concerning the constitutional obligations, therefore, the Commission has attempted

to consider the alternative positions before making its recommendations.

Despite these constraints, the Commission must proceed with its attempt to define in practical and economic terms an ultimate transportation system for this Province in the immediate and medium range future. To do less would be to violate the terms of reference of the Commission, and to shirk its responsibility. The purpose of appointment of a Commission such as this is surely to recommend the ultimate practical solution to the problem under analysis.

The Commission recognizes that the Government of the Province of Newfoundland, representing the people of the Province, has the legal and constitutional authority to enter into an agreement with the Federal Government concerning constitutional change, and indeed, concerning an interpretation of the constitutional obligations contained in the Terms of Union. At the same time, it is clear from the submission made by the Government of Newfoundland to the Commission, that the Province regards the obligation of the Federal Government to be the maintenance of both Gulf and coastal operations in accordance with the traffic offering. While not specifically stated in its brief to the Commission, nevertheless by extrapolation, the Province's position is also clearly that there is a constitutional obligation to likewise maintain the rail operations within the Province, and indeed to upgrade these services. This being the case, it would appear that should the Federal Government wish to make any changes in service which would constitute an abridgement of these perceived obligations, it would be necessary to obtain the consent of the Province before instituting any such changes.

The Commission recommends that, in any instance where subsequent specific recommendations of this report require government action adversely affecting maintenance of service in Gulf, coastal or rail operations, prior agreement to such action be obtained between the Federal and Provincial Governments. Where there is disagreement between the governments as to what the Constitution requires, or where both may argue that there is a constitutional obstacle, the matter should be referred to the Supreme Court of Canada for final interpretation and decision. Where that decision would prevent the taking of the steps recommended by the Commission, then both governments should negotiate an agreement providing for the submission of a joint address by the Senate and House of Commons of Canada to the British Parliament, requesting a formal change in the Constitution in order to then permit the agreed course of action.

Section 2

The Present

Chapter III

The Newfoundland Transportation System Inventory of Existing Facilities and Services

Introduction

In assessing the performance of any system, a necessary starting point is the accurate identification of that system. Although the Newfoundland system has some components which, as far as the fixed plant is concerned, have been mainly static for a number of years, there are other services which are dynamic and are changing from year to year in response to changing transport demands. This part of the report gives an up to date description of transportation services in this Province. Because there are many facilities which are used to serve both passenger and freight requirements, the basic inventory which follows is discussed in terms of services provided on particular routes.

Marine (Gulf, North Sydney, Port aux Basques and Argentia)

At present, the Mainland-Newfoundland ferry service is a system of passenger and vehicle carrying ferries which operates from North Sydney to Port aux Basques and to Argentia. Until the recent decline in rail traffic on the Gulf, the system also included a number of freighters which handled any excess cargo traffic that could not be accommodated on the North Sydney/Port aux Basques rail ferries. This excess traffic was diverted from Port aux Basques and was rerouted primarily to St. John's.

CN Marine has been entrusted with the responsibility of providing and administering the service described above. It operates three MOT-owned vessels, the '*Frederick Carter*', the '*Sir Robert Bond*', and the '*Ambrose Shea*', as well as four chartered ships, the '*Marine Nautica*', the '*Marine Atlantica*', the '*Marine Cruiser*', and, during the summer months only, the '*Stena Nordica*'.

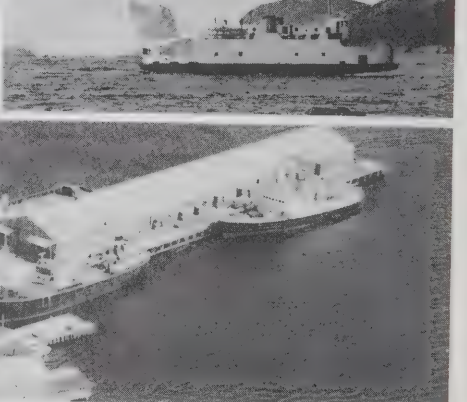
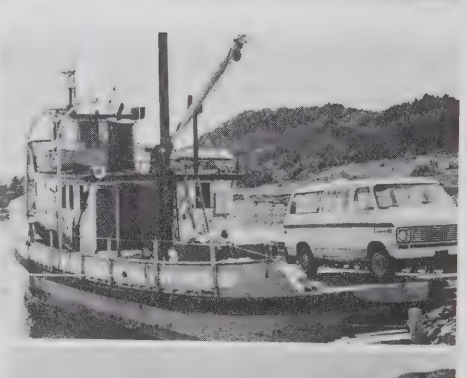
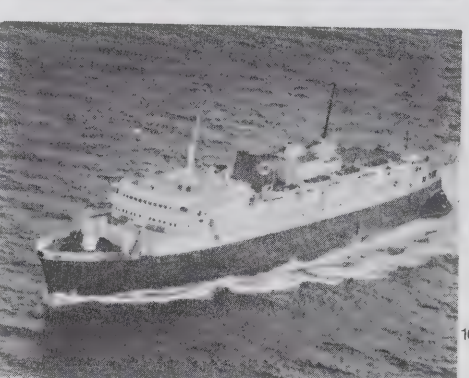
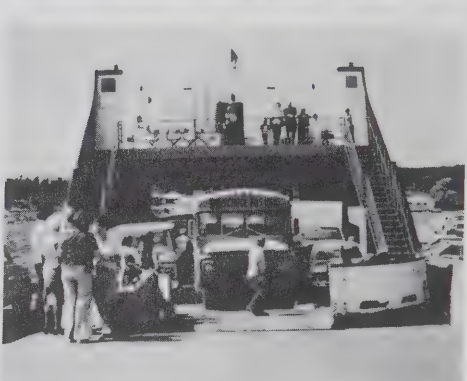
Scheduled passenger and vehicle service is provided by one of the MOT-owned vessels, the '*Ambrose Shea*', and all of the above chartered ships. The remaining MOT-owned ferries, the '*Frederick Carter*' and '*Sir Robert Bond*' are primarily used to carry rail cars and tractor trailers on an unscheduled basis from North Sydney to Port aux Basques.

The Gulf operating plans call for two passenger/vehicle vessels, the '*Atlantica*' and the '*Nautica*', to provide a minimum service of one sailing per day each in the winter off-season. Winter service is supplemented by the '*Ambrose Shea*' and the '*Marine Cruiser*'. Rail traffic and some tractor trailer traffic, not carried by these vessels, is handled in the '*Frederick Carter*' and '*Sir Robert Bond*', one of which may be removed from service during periods of low traffic demand.

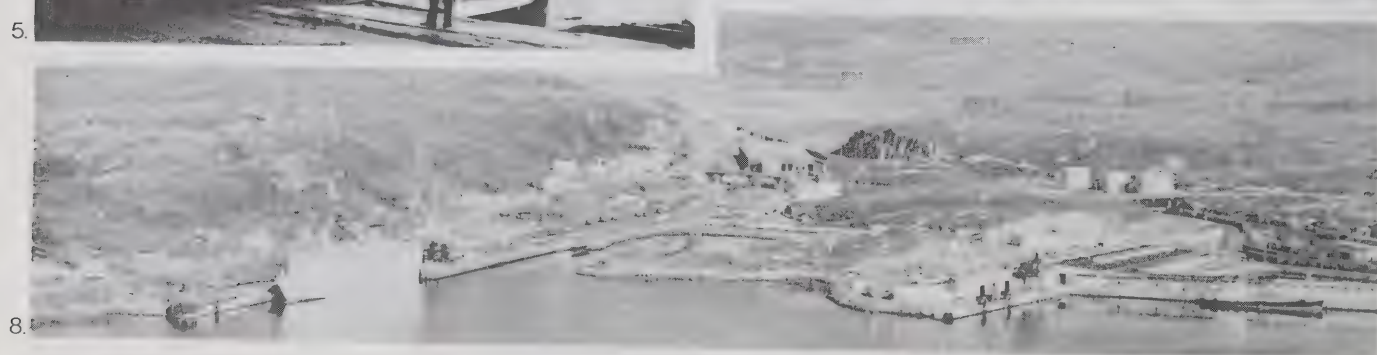
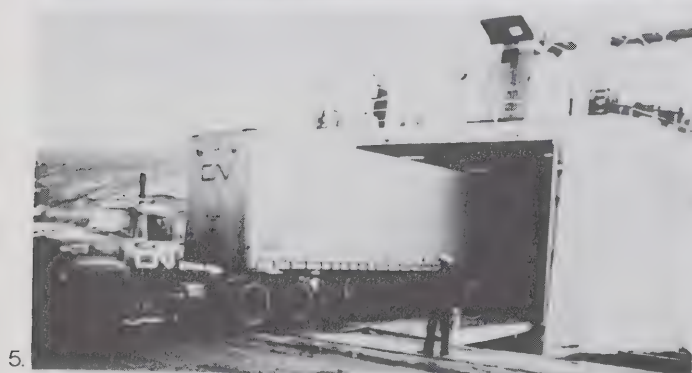
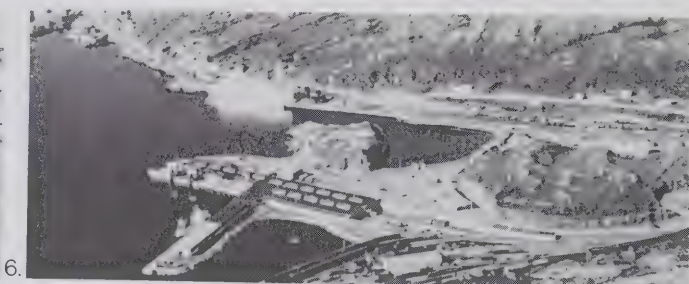
The summer Gulf operation is provided by adding another ship, the '*Stena Nordica*'. Thus, on peak days during the summer, three passenger/vehicle vessels are placed on fast turnaround service with the crossing taking about five and a half hours (as compared to the normal six and a half hours) and turn around taking two and a half hours. In this manner three one-way trips can be provided in a twenty-four hour period.

During the summer from mid-June to mid-September, the '*Ambrose Shea*' and the '*Marine Cruiser*', two passenger/vehicle ferries, normally operate to Argentia. The 240-mile crossing takes about eighteen hours and is followed by a port stopover of six hours.

The '*Marine Cruiser*' has had an interesting recent past. In the winter of 1976, this vessel was assigned to the Bay of Fundy between Yarmouth and Portland, Maine, and was subsequently transferred to the



1. *'Marine Runner'* at Burgeo
2. *'Hopedale'* unloading at South East Bight
3. *'Hopedale'* at Monkstown
4. *'Dunure'*
5. *'Marine Coaster'* at Port Hope Simpson, Labrador
6. Awaiting the boat, with barge, at Davis Inlet
7. *'Marine Cruiser'*
8. *'Northern Cruiser'* at Blanc Sablon
9. *'Hamilton Sound'* at Carmanville
10. *'Agnes & Anne II'* at Cobbs Arm
11. *'John Guy'* near Portugal Cove
12. Lewisporte, CN terminal



1. North Sydney, N.S., Ferry terminal
2. North Sydney, N.S.
3. North Sydney, N.S.
4. '*Ambrose Shea*' Port aux Basques
5. '*Stena Carrier*' unloading
6. Port aux Basques
7. '*Marine Nautica*'
8. Port aux Basques, ferry and rail terminal

Lewisporte to Goose Bay Coastal Service after the 'William Carson' sank. Thus, she was not available for the Argentia service, as planned for July and August of 1977, although it is intended that she will return to that run during the summer of 1978.

Coastal Services

At present the Newfoundland Coastal Service is operated by CN Marine on behalf of MOT, which assumes any operational deficits. CN Marine operates four vessels owned by MOT, the 'Hopedale', 'Bonavista', 'Taverner', and 'Petite Forte', three chartered passenger ships, the 'Marine Runner', 'Marine Sprinter' and 'Marine Cruiser', and administers the operations of a number of freighters chartered from private companies.

The MOT-owned vessels and the chartered vessels provide scheduled passenger and freight service to the following areas:

a) South Coast Service with intermediary ports of call not listed:

- (i) Argentia/St. Pierre/Port aux Basques
- (ii) Port aux Basques/Ramea/François
- (iii) Terrenceville/Milltown/Burgeo

b) North Coast Service:

- (i) Lewisporte/Goose Bay (direct service—1977 only)
- (ii) Goose Bay/Nain (with other ports)
- (iii) Lewisporte/Goose Bay (with other ports)

The chartered freighters administered by CN Marine provide unscheduled freight service to communities along the south coast, the coast of the Northern Peninsula and the Labrador coast.

1. South Coast Service:

a) Argentia/St. Pierre/Port aux Basques:

This route is served by the MOT-owned conventional passenger/freight ship, the 'Hopedale' on a one week cycle. The ship is predominantly a passenger vessel, but has space for some cargo.

b) Port aux Basques/Ramea/François:

Daily service on this route is at present provided by the 'Marine Runner,' a chartered vessel, used as a passenger and mail boat.

c) Terrenceville/Milltown/Burgeo:

Weekly passenger and mail service on this route is provided by the 'Marine Sprinter'.

2. South Coast Freight Service:

CN Marine administers the operation of five freighters on a loose schedule along the south coast between Port aux Basques and Argentia: the 'Marine Voyager', 'Ambrose Foote', 'Dunure', 'Marine Trader' and 'Topsail Star'. Almost all the intra-coastal freight in the area is handled by these vessels.

In addition to the coastal freight service, CN Marine offers a "carload"—freight-only service between North Sydney and south coast ports. The two chartered freighters in this operation are unscheduled,

serving when and where traffic is offering. The vessels used are the 'Clyde' and the 'Marine Transport'. The usual cycle time for these vessels is two to three weeks.

3. North Coast Services:

a) Lewisporte/Goose Bay direct service:

This run was introduced in 1976 with the 'William Carson' completing weekly trips between June and September, which included St. John's, Lewisporte, St. Anthony, Cartwright and Goose Bay as ports of call. In 1977 the 'William Carson' sank off the Labrador coast during her first run of the season. Temporary service was thereafter provided by the 'Ambrose Shea' until that vessel was needed for the Argentia/North Sydney run. During the remainder of the season service was provided by a twice weekly direct Lewisporte/Goose Bay run by the 'Marine Cruiser', which had been borrowed from the Argentia/North Sydney run for that purpose. Recently CN Marine has announced that the St. John's/Goose Bay service would be restored during 1978 and that the railcar ferry 'Sir Robert Bond' would be renovated by the addition of passenger sleeping accommodations and placed on that service.

b) Goose Bay/Nain:

This route is served by the MOT-owned 'Bonavista' on a weekly cycle. The vessel is designed to carry a large number of passengers as well as large volumes of cargo.

c) Lewisporte/Goose Bay:

This indirect route is served by the MOT-owned 'Petite Forte' and 'Taverner' on a weekly cycle basis. Both vessels carry freight and passengers.

4. Northern Freight Service:

a) West Coast/Northern Peninsula/Southern Labrador:

CN Marine administers the operations of the freighter 'Prince Andrew' on an unscheduled basis along the west coast of the Northern Peninsula between Corner Brook and the south coast of Labrador. This vessel now handles all of the intra-coastal freight in this area.

b) East Coast/Northern Labrador:

Service along the east coast of the Island from St. John's and Lewisporte to the northern coast of Labrador is provided by four CN chartered freighters: the 'Marine Coaster', 'Glencoe', 'Harry Lake' and 'Kloster'. Service is provided on an unscheduled basis, whenever sufficient traffic is offering.

Intra-Island Ferry Service

There are nine inland ferries operating at various points along the coast of the Island of Newfoundland.

1. Bell Island/Portugal Cove

This service operates over a distance of 2.5 miles from the mainland terminal at Portugal Cove to the terminal at the southeastern end of Bell Island. The

ferry '*John Guy*', with a capacity to handle 200 passengers and 26 vehicles, is backed up by the '*Katherine*' which can accommodate 250 passengers and 23 vehicles. The Federal Government subsidy to this service during the 1976-77 fiscal year was \$877,500, and to supplement the service during the summer months the Provincial Government provides a subsidy of \$10,000 per week, up to a maximum of 10 weeks.

Expenditures of \$191,469 were incurred during the 1973-75 period on terminal repairs at Bell Island, while in 1975-76, \$112,011 was spent on replacement of the ferry ramp. No improvements to docking facilities at Portugal Cove have been made since 1971-72.

2. *St. Brendan's/Burnside*

Regular ferry service has been provided since 1966, with most customers being passengers without vehicles or small trucks carrying freight. The ferry the '*Linda Ann II*', which can accommodate 20 passengers and 3 vehicles, operates on a year round schedule, but owing to weather conditions, especially during the winter months, the service is frequently supplemented by air transportation from Gander Aviation. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$82,475.

No funds have been spent on waiting room and wharf facilities at St. Brendan's or Burnside during the past five years. However, construction of a new wharf is proposed for 1978. At present, there are no waiting room facilities.

3. *Greenspond/Badger's Quay*

This service began in 1965, and now operates on a year round basis on the three mile run using the '*Clara Hallett*', which can accommodate 20 passengers and 2 vehicles. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$55,760. No waiting room facilities exist at either end of the route, nor during the last five years, has any expenditure been incurred for the improvement of wharf facilities at either end.

4. *Fogo Island/Carmanville*

The CTC took over the subsidy of this service from the Province in 1967. The ferry '*Hamilton Sound*', which can accommodate 77 passengers and 25 vehicles, operates on a 12 month schedule from Seldom, on Fogo Island, to Carmanville. The service is complemented by air service from Gander Aviation in the winter when ice conditions prevent the ferry from operating. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$173,081.

No improvements to wharf and waiting room facilities have been made since 1974.

5. *Change Island/Cobb's Arm*

This ferry service replaced the CN coastal boat service from Lewisporte in 1967. The ferry '*Agnes and Ann II*' which can accommodate 12 passengers and 5 small vehicles, operates from a privately owned

wharf at Change Islands to a MOT-owned wharf at Cobb's Arm. The '*Barbara Darlene*', which can accommodate 12 passengers and no vehicles, serves as a backup. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$86,100.

During the winter, when the ferry is unable to operate on a regular basis, air service is provided by Gander Aviation.

Both the wharf at Change Islands and the wharf at Cobb's Arm are in extremely poor condition and need considerable improvements.

6. *Little Bay Island/Long Island/St. Patrick's*

Ferry service to the two islands began in 1971 with the construction, by the Newfoundland Government, of wharves at Little Bay Island and Lushes Bight on Long Island. This service is operated on a year round basis by the '*Green Bay Transport*', which can accommodate 50 passengers and 11 vehicles, with backup service being provided by the '*Seaview*', which can accommodate 25 passengers and 4 vehicles. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$209,886.

In 1971-72, \$11,323 was spent on repairs to the wharf at St. Patrick's, the main terminus. More recently, in 1973-74, \$207,301 was spent on wharf extension at Springdale, the alternative mainland terminus.

7. *Blanc Sablon/St. Barbe*

The service was started in 1966, and has been subsidized by the Federal Government since 1969. During 1977, the '*Northern Cruiser*', which can accommodate 100 passengers and 40 vehicles, provided service to 15 communities across the Strait of Belle Isle along the coast of Labrador and Quebec between the months of May and November. During the 1976-77 fiscal year the Federal Government subsidy amounted to \$225,000.

The wharf at St. Barbe was constructed in 1973-74 at a cost of \$284,202 and improvements to wharf facilities at Blanc Sablon are at present underway.

In addition to these seven ferry services which receive federal subsidy, two others are subsidized by the Government of Newfoundland:

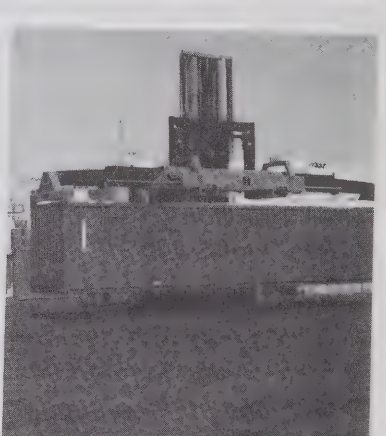
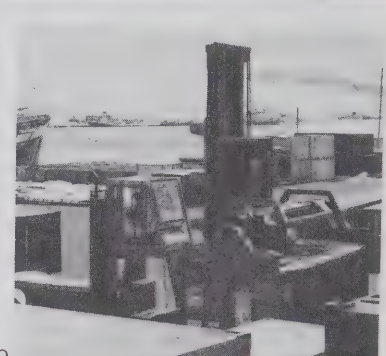
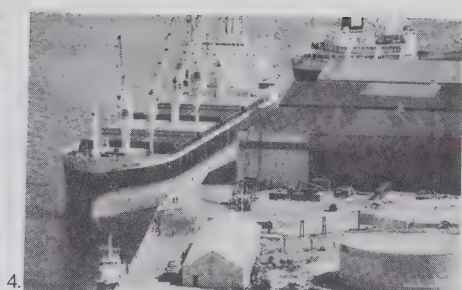
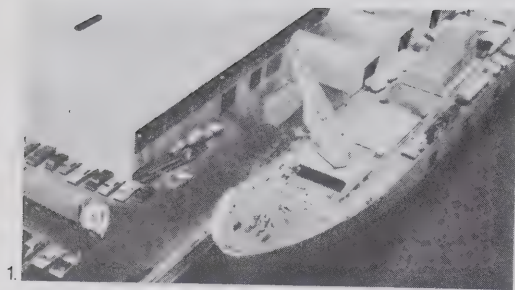
8. *Woody Point/Norris Point*

This service in Bonne Bay was originally provided as a quick means of transporting persons to the hospital in Woody Point. A year round service is provided, subject to ice conditions.

The '*A. Stirling MacMillan*', which can accommodate 24 passengers and 10 vehicles, has replaced the smaller '*Highland Lass*', which can accommodate 16 passengers and 6 vehicles, as the main ferry. Recently the wharf at Woody Point has been extended.

9. *Burgeo/Ramea/Grey River*

This service is operated out of Ramea by John Penney & Sons Ltd., a local fish processing firm. The



1. Loading for Newfoundland at Clarke Transportation facilities in Montreal
2. Loading mobile housing units for Newfoundland
3. '*Chimo*' at Newfoundland Steamships Facilities, St. John's
4. Paper carriers loading at Bowater, Corner Brook
5. '*Fort St. Louis*' at Western Terminals Facilities, Corner Brook
6. Newfoundland Steamships container
7. Chimo Lines new ship, '*Lady M.A. Crosbie*'
8. Newfoundland Container Lines ship '*Newfoundland Container*'
9. Container handling facilities used by Newfoundland Container Lines and Chimo Lines, St. John's
10. Container being transferred from ship to tractor-trailer flatbed

'*Senator Penny*', which can accommodate 26 passengers and no vehicles, is a passenger ferry, operated on a year round basis, with the '*David Pauline*', which can accommodate 16 passengers and no vehicles, serving as a backup.

This service is operated in addition to service provided by the CN Marine '*Petite Forte*'. Significant amounts of capital expenditure were recently incurred on wharf and shed facilities at the communities involved.

Direct Steamship Service to Newfoundland and Labrador

There are four main steamship services operating from the mainland to various points in Newfoundland and Labrador:

- a) Chimo Shipping Limited
- b) Newfoundland Steamships Limited
- c) Newfoundland Container Lines Limited
- d) Federal Off-Shore Services Limited

1. Chimo Shipping Limited

Chimo Shipping Limited is a wholly owned Crosbie Group Company and is operated on an unsubsidized basis. Container service is operated from Montreal to St. John's and a break-bulk service to Goose Bay. The frequency of service to St. John's is one round trip every eight days, while Goose Bay is serviced once every four to five weeks.

2. Newfoundland Steamships Limited

Newfoundland Steamships is administered by Clarke Transportation Canada Limited of Montreal. Service is provided from Montreal to Corner Brook and St. John's using modern side-loaders which handle palletized, crib and a limited amount of container traffic.

The first side-loader, '*M.V. Cabot*', was introduced in 1965, and the second, '*M.V. Chimo*', in 1968. Although initiated as an unsubsidized service, rising costs led the company, in 1969, to apply for and be granted a subsidy by the CTC. The original subsidy was \$7.00 per ton, but this was later increased and now is \$15.64 per ton. The company now would like to augment this service by providing a larger vessel. Accordingly, it has applied to the CTC for an increase in subsidy in order to be able to accomplish this.

Between 1972 and 1976 a total of \$2.4 million was spent by Clarke Transportation in terminal facilities at Montreal, St. John's and Corner Brook.

3. Newfoundland Container Lines Limited

Newfoundland Container Lines Limited is a subsidiary of A. Harvey and Company Limited of St. John's. It provides a newly instituted container line service between Halifax and St. John's.

The main vessel, the '*M.V. Newfoundland Container*', is a side-loader and is operated on a year round basis. At the present time the service is not subsidi-

dized, but the company has applied to the CTC for a subsidy of approximately \$20.00 per ton.

The company has extensive terminal facilities (also used by Chimo Shipping Limited) in St. John's harbour and therefore has not had to incur significant capital expenditures on wharf infrastructure in order to set up this service. Major capital outlays were for the vessel, containers and fork-lift.

4. Federal Off-Shore Services Limited

Federal Off-Shore Services Limited are agents of Federal Commerce and Navigation (1974) Limited of Montreal, and provide a roll on/roll off (ro/ro) service from Halifax to St. John's. Under contract to the CNR, the firm's eastbound traffic is confined to shipping new automobiles and trucks from Dartmouth, Nova Scotia, to St. John's. Westbound traffic to Halifax consists of privately owned cars and trucks.

The firm operates from the autoport in Dartmouth, which is owned by the CNR and uses National Harbours Board facilities in St. John's.

5. Additional Shipping

There are other services provided by direct sea, mainly bulk cargo, to and from the Province. Petroleum is shipped to the refinery at Holyrood, as is phosphate bearing rock to the ERCO plant at Long Harbour. Fish, forest by-products and minerals are also shipped from the Province. This service is provided under contract with the suppliers and the companies concerned.

Highway Infrastructure

The Province at present has a highway network consisting of two distinct segments, i.e., the Island segment and the Labrador segment. The Island portion of the network is fairly well developed and the vast majority of communities is connected to this network. However, there are still some areas without connection to the Island highway system; namely, the south coast from Rose Blanche to the Bay D'Espoir area, part of the east side of the Northern Peninsula and some small settlements on Placentia and Fortune Bays.

The type and quality of highway provided vary with the function of each highway. The main emphasis, since the 1950's, has been firstly to provide isolated communities with access, and secondly, to provide a road network compatible with the expected functions of the roads. The last major area, the Burgeo area, will soon be linked to the provincial network. Hence, at the present time, the primary emphasis is on bringing existing roads up to desirable standards dictated by various conditions of speed, traffic volumes, safety, etc.

The Labrador segment of the network, by comparison, is in a state of under-development and the roads which do exist are, for the most part, in relatively poor condition.

1. The Island Segment

As of March 1977, the Island highway network consisted of 2490 miles of gravel road and 2756 miles of paved road for a total of 5246 miles, excluding the Terra Nova and Gros Morne National Parks' roads, which total 25 and 48 miles respectively. In addition, there are several hundred miles of forest access roads maintained by the Provincial Government or private operators such as Price and Bowater.

The most vital element in the movement of intra-Island freight and passenger traffic is currently the highway network and this situation will continue in the foreseeable future. Thus, it is of the utmost importance to embark upon a systematic road upgrading programme to provide for this traffic.

There are three classifications of highway on the Island as defined by the Roads and Transportation Association of Canada (RTAC). These are: (1) Arterial (the TCH), (2) Collector (Northern Peninsula Highway), and (3) Local (Port Albert Road). The backbone of the system is the TCH, which starts in the west at Port aux Basques, the access point for mainland ferries, circumscribes an arc north and ends in the east at St. John's. This highway closely follows a parallel route to the railway. The major collector roads branch off the TCH, the minor collector roads branch off either the TCH or the major collectors, while the local roads are connected to either of the preceding or other local roads.

2. The Labrador Segment

There are 45 miles of gravel road from Red Bay to the Quebec border on the south coast, a paved road from Wabush through Labrador City to the Quebec border (a distance of 12 miles), an all-weather private road from Esker to Churchill Falls, a 160 miles seasonal gravel road from Churchill Falls to Goose Bay/Happy Valley, and a 25 mile all-weather gravel road

from Goose Bay to North West River. There is no interconnection between the southern Labrador coast and Goose Bay, nor between Goose Bay and Wabush.

Evaluation of these two segments appears later in this report.

Trucking Services To And Within Newfoundland

1. Schedules

Over 90% of all trucking firms serving Newfoundland from points of origin on the Mainland and within the Province provide irregular or unscheduled service to communities. This is mainly caused by the reluctance of predominantly small carriers to leave warehouses without full truck loads.

However, the few large firms which provide regular service account for a substantial portion of the total trucks in use at a given time.

2. Inventory Of Vehicles

A profile of both intra and extra-Newfoundland public carriers using tractor-trailers and straight trucks is shown in Tables 3-1 and 3-2. These tables show data for 1973 and 1977, showing the change during the four year period since the trucking industry was studied by Kates, Peat, Marwick & Co., in the Trans Newfoundland Corridor Transportation Study.

Tables 3-1 and 3-2 reveal a significant increase in the number of extra-Newfoundland carriers, and a considerable decline in the number of carriers operating within the Province. PUB* officials indicate that over the past few years there has been a major decline in the number of intra-Newfoundland carriers owing to the high incidence of small firms' consolidations. These mergers have resulted in 10 to 12 companies handling a large proportion of the total trucking market.

* Public Utilities Board

Table 3-1. Intra-Newfoundland Carriers Vehicle Fleet Profile

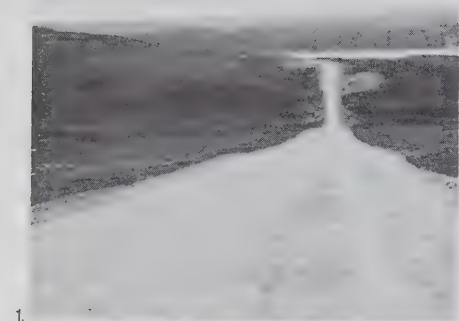
| | 1973 | 1977 |
|---|-------|--------|
| Number of Companies | 479 | 344 |
| Straight Trucks M.G.W. 10,000 lbs or less | 228 | 49 |
| Straight Trucks M.G.W. 10,001 to 15,000 lbs | 53 | 17 |
| Straight Trucks M.G.W. 15,001 to 23,000 lbs | 138 | 52 |
| Straight Trucks M.G.W. 23,001 to 28,000 lbs | 539 | 286 |
| Straight Trucks M.G.W. 28,001 to 45,000 lbs | 84 | 84 |
| Straight Trucks M.G.W. 45,001 lbs or more | — | 2 |
| Tractors | 114 | 476 |
| Total Driving Units | 1,156 | 996 |
| Total Payload (tons) | 8,845 | 13,372 |
| Average Driving Units/Co. | 2.4 | 2.8 |
| Average Tractor/Co. | .2 | 1.4 |
| Average Payload/Co. (tons) | 18.5 | 38.9 |
| Average Payload/Driving Unit (tons) | 7.7 | 13.8 |
| Ratio Tractor Driving Unit (%) | 9.9 | 49.3 |

SOURCE: Motor Carrier Division of Public Utilities Board

Table 3-2 Extra-Newfoundland Carriers Vehicle Fleet Profile

| | 1973 | 1977 |
|---|-------|--------|
| Number of Companies | 80 | 140 |
| Straight Trucks M.G.W. 10,000 lbs or less | 14 | 1 |
| Straight Trucks M.G.W. 10,001 to 15,000 lbs | 2 | 1 |
| Straight Trucks M.G.W. 15,001 to 23,000 lbs | 20 | 5 |
| Straight Trucks M.G.W. 23,001 to 28,000 lbs | 77 | 44 |
| Straight Trucks M.G.W. 28,001 to 45,000 lbs | 22 | 21 |
| Straight Trucks M.G.W. 45,001 lbs or more | — | 5 |
| Tractors | 189 | 635 |
| Total Driving Units | 324 | 712 |
| Total Payload (tons) | 4,824 | 13,450 |
| Average Driving Unit/Co. | 4.1 | 5.1 |
| Average Tractor/Co. | 2.4 | 4.5 |
| Average Payload/Co. (tons) | 60.3 | 96.1 |
| Average Payload/Driving Units (tons) | 14.9 | 18.9 |
| Ratio tractor Driving Unit (%) | 58.3 | 89.2 |

SOURCE: Motor Carrier Division of Public Utilities Board.



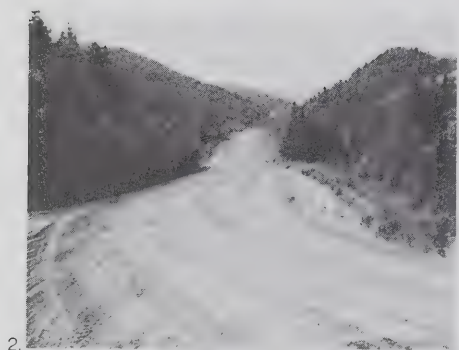
1.



5.



9.



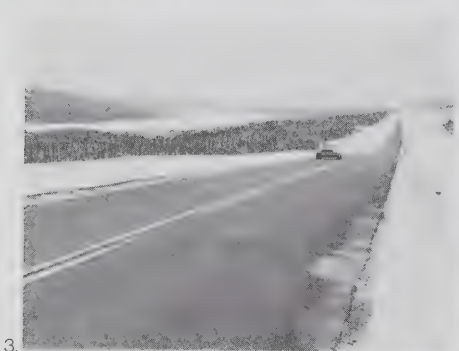
2.



6.



10.



3.



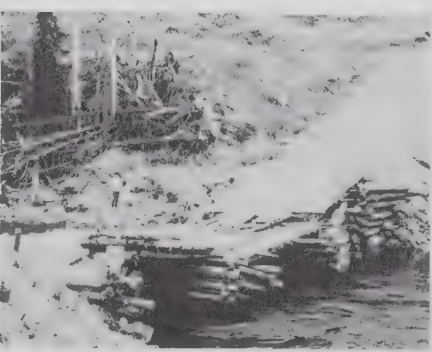
7.



11.



4.



8.



12.

1. Great Northern Peninsula highway, gravel portion
2. White Bay gravel road
3. Trans Canada near Birchy Lake
4. Corner Brook Harbour Arterial
5. Trans Canada, Terra Nova National Park
6. Trans Canada and Arterial outside St. John's
7. Trans Canada near Port Blandford
8. A bridge on the '*Freedom Road*', Labrador
9. The Red Bay road near Pinware River, southern Labrador
10. Red Bay road washout
11. Trans Canada near Glovertown, spring 1978
12. Trans Canada, Little Harbour junction, spring 1978

Conversely, the number of extra-Newfoundland carriers has increased over the same period because of market demands for trucking services.

The majority of equipment used by both types of carriers is 2 to 5 years old, suggesting that most is in good physical condition.

Over 80% of all carriers have less than six driving units. However, although there are significantly fewer large carriers, they account for a substantial proportion of the total number of driving units in service at a given time.

PUB information reveals that 181 temperature-controlled driving units are registered by intra-Newfoundland carriers. About 67% of these units are owned by trucking firms in the 21 to 60 units category.

3. Service

Transit times for vehicles have improved significantly over the past few years. This has been due to a number of factors; the development of containerization, greater experience, more paved roads and competitive pressures.

Previously, the industry was highly fragmented with many small firms providing service which was not always efficient. With the emergence of larger firms and a considerable reduction in the number of one-man carriers, a group of 12 companies has captured most of the trucking market in Newfoundland and the Maritimes.

Another element that has led to an improvement in overall quality is the method of paying drivers. A large number of carriers serving Newfoundland does not employ salaried personnel to operate company owned vehicles, but instead hires brokers who act as independent operators of their own vehicles within the firm. These brokers haul freight in their own trucks for a portion of the fare which is measured by the mile instead of the hour. This contract provides more incentive for the brokers to supply quick, efficient service in order to maximize income.

In 1969 the Newfoundland trucking industry was made more viable when a subsidy similar to the MFRA subsidy was extended to all carriers which operate under a class and commodity rate tariff. The Atlantic Regional Freight Assistance Act (ARFAA) included the following three provisions which exert a Newfoundland positive impact on the Newfoundland trucking industry.

a) A 15 percent subsidy is offered to trucking firms which move freight between any two points in the Atlantic Region. This subsidy will be changed in September 1978, to one applying only to selected commodities moving in the Atlantic Region. The amount of the subsidy will remain unchanged.

b) A 30 percent subsidy is payable to those firms in respect of all westbound freight movements that originate in the select territory and terminate outside the area.

c) A further 20 percent subsidy is offered for selected commodities.

Most of the larger firms are able to provide reliable service to isolated communities along the coast of Newfoundland by entering into verbal agreement with smaller carriers serving specific areas not normally served by the larger carriers where the volume of traffic does not warrant a special trip by the larger firm.

4. Employment in Trucking

Total employment in the trucking industry in Newfoundland is shown in Figure 3-1, which indicates employment by traffic zone. Total employment for all 17 zones is 1578 persons. Figures include drivers, maintenance, management and related functions.

Bus and Taxi Transport

1. Private Bus and Taxi Service

Twelve privately-owned bus companies provide passenger service to various areas within Newfoundland.

In addition to the above private bus operators, eight companies provide limousine service in the Burin Peninsula region. These operators are regarded as being "mavericks" who do not always abide by existing PUB regulations in that their service is based upon demand rather than schedule.

Service by the twelve private companies is generally from coastal communities to the larger centers of the Island.

2. CN Roadcruiser Bus Service

After termination of the rail passenger service, CN introduced the Roadcruiser Bus Service which is designed to provide passenger service to communities along the TCH.

a) 1977 Schedule

The Roadcruiser service operates three times daily from St. John's to Port aux Basques with stops at various locations along the TCH between these points. Additional service is provided between Corner Brook and Port aux Basques at specific times and days during the week.

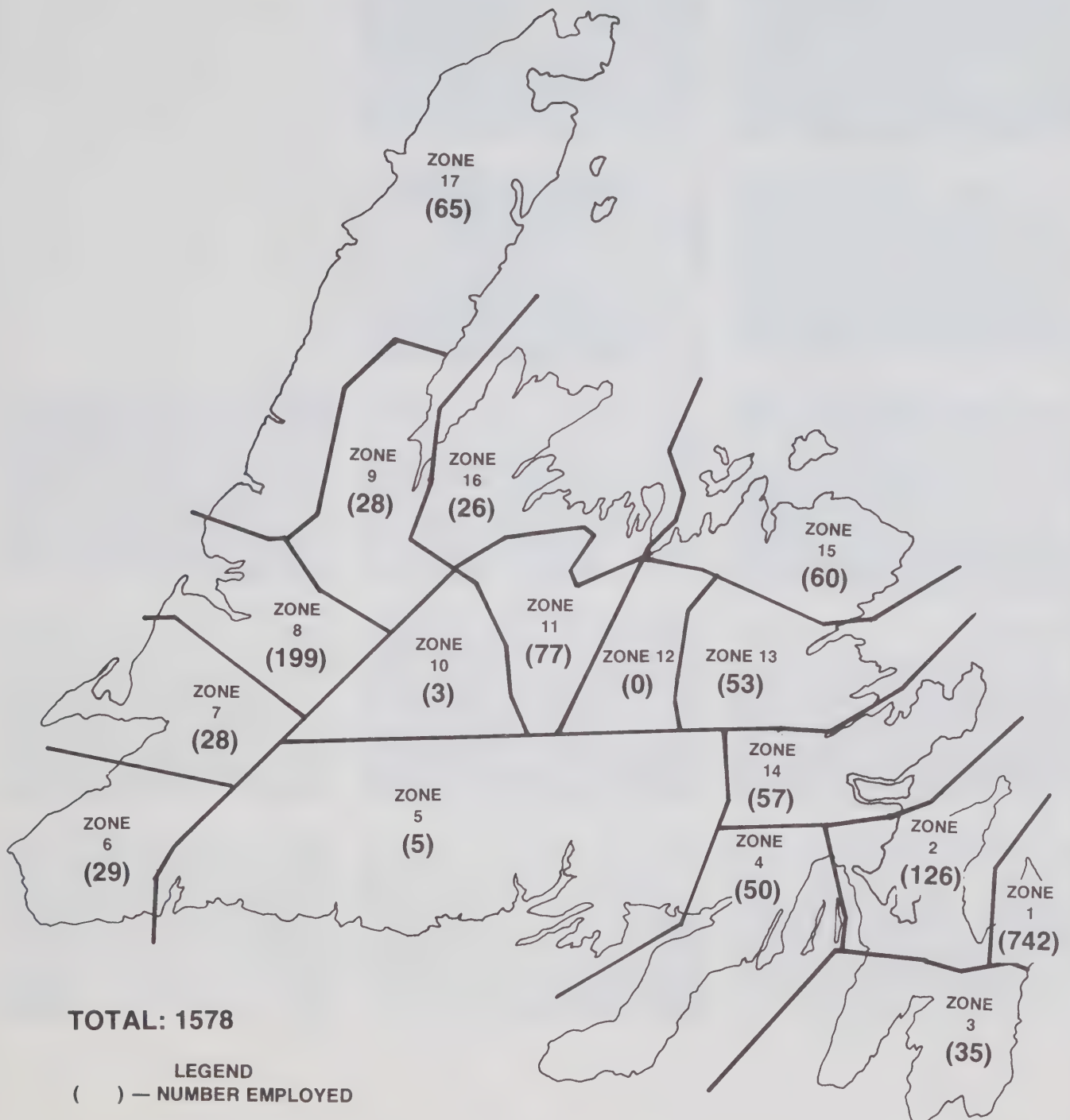
b) Fare Structure

Officials of the CN Roadcruiser service have recently negotiated a new tariff schedule at a series of CTC hearings. The new tariff was permitted to take effect on November 1, 1977, pending final approval from the CTC.

This tariff allows for an estimated total of 42,200 CN Bus passholders. These passholders include CN employees, students, senior citizens, blind persons and clergy, all of whom are granted passes at substantial discounts from normal prices.

Figure 3-1

EMPLOYMENT IN TRUCKING INDUSTRY BY TRAFFIC ZONE

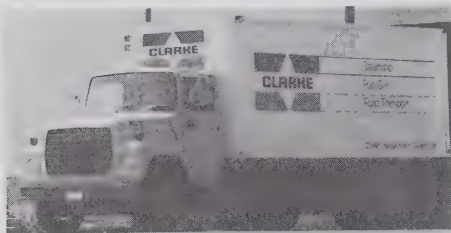




1



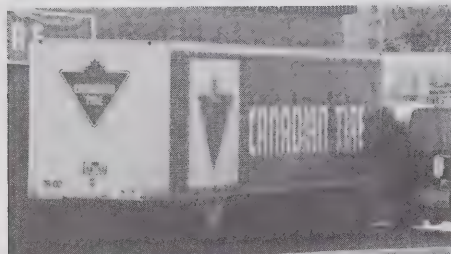
6



2



7



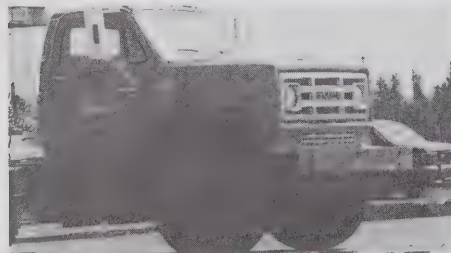
3



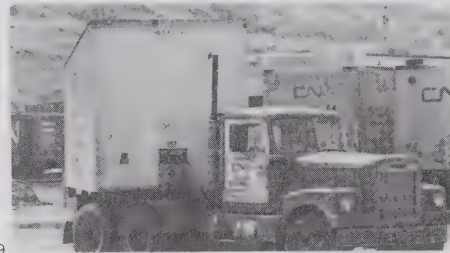
8



11



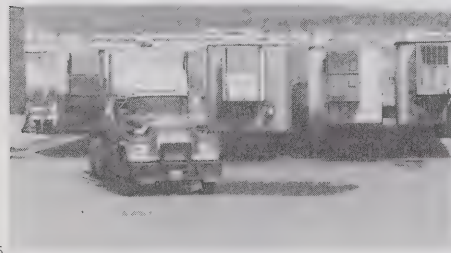
4



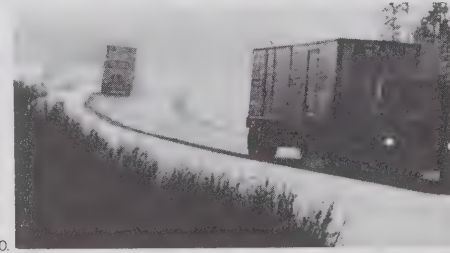
9



12



5



10



13

1. Moffatt equipment
2. Clarke Transportation truck
3. Canadian Tire trailer
4. Day & Ross tractor
5. Refrigerator (Reefer) trailers used for delivery of fresh fruit and vegetables
6. Canada Packers truck
7. Express shed, Port and Basques
8. Log truck near Corner Brook
9. CN Transportation Ltd. equipment
10. CN Transportation tractor-trailers on the TCH
11. CN Roadcruisers, Port aux Basques
12. CN Roadcruisers
13. CN Station and Roadcruisers, St. John's

c) Inventory Of Vehicles

In the past four years, a total of four Prevost Roadcruiser buses have been retired and three new buses acquired. At the present time 22 buses are used in the Roadcruiser operation. All vehicles are being depreciated over eight years on a straight line basis.

CN officials reveal that with continuous preventive maintenance, the useful life of the buses can be extended to 10 years.

d) Capacity

Of the 22 CN buses, not fewer than 15 are capable of providing service at any given time. On normal weekdays, CN places 10 buses in service to complete the scheduled 4 round trips per day (3 between Port aux Basques and St. John's, one between Corner Brook and Port aux Basques). Two additional buses are in service on Sundays between Port aux Basques and Corner Brook.

On a busy day, a total of 18 buses is placed in service. If the volume of traffic at any time exceeds the capacity of 20 buses (maintenance is normally being conducted on the remaining two), CN hires various local buses. CN hires about 130 buses a year with peak hiring occurring at Easter, August and Christmas/New Year periods.

e) Capital Expenditures On Infrastructure

The bus system does not include established terminals along the TCH where buses stop. Rather, most scheduled stops are held at well known local points, e.g., service stations, stores, hotels. Because of this, CN has not spent any capital for improvement of terminal and related facilities in small areas. However, funds were recently spent on renovation of garage facilities in St. John's. The depot in Corner Brook is under lease.

f) Express Package Service

CN Roadcruiser offers an express package service between St. John's and Port aux Basques, delivering packages to normal stopping points along the TCH. The consignee is responsible for delivery beyond these points.

Ports

1. Port Infrastructure

In a Province where direct sea transportation plays such a vital role, there must be port facilities to service this traffic. There are innumerable ports in Newfoundland and Labrador, some of which lack even the barest necessities and others which display some degree of sophistication. Owing to the isolation of many communities, sea transportation, for many years was the sole mode of transportation. Even today, the CN coastal service makes calls where the ships must anchor off-shore and both passengers and freight are loaded onto smaller vessels to reach the

port. However, the main ports are described here and they are St. John's, Lewisporte, Argentia, Marystown, Port aux Basques, Stephenville, Corner Brook, St. Barbe, Botwood, St. Anthony and Goose Bay.

a) Port of St. John's

St. John's is the only National Harbours Board Port in Newfoundland and is open to navigation year round. The main traffic is the importation and distribution of general cargo and petroleum products. It is a compulsory pilotage port under the Atlantic Pilotage Authority.

Facilities: There is a graving dock with an adjacent machine shop equipped to make major repairs to hull and machinery. The dock also has heavy lifting equipment with a maximum capacity of 150 tons.

There is a small harbour tug to assist ships and there are divers available for underwater repairs and survey.

There are 36 berths, 16 of which are National Harbours Board property and 20 of which are either privately or publicly owned.

These vary in length from 192 feet to 600 feet with depths alongside of up to 31 feet.

There is road connection to all waterfront property and the airport is some 3 miles distant.

b) Port of Lewisporte

This port is a public harbour which is open for navigation from May to December with occasional arrivals assisted by ice-breakers during the winter season. Traffic consists of incoming petroleum products and general cargo and outgoing forest products. It is also a CN terminal for northeast coast and Labrador ports.

Facilities: There are three main wharves owned by CN, Imperial Oil and the Government respectively. The lengths vary from 120 feet to 600 feet and depths alongside are up to 32 feet.

The CN rail tracks run to the port, a 25 mile paved highway connects to the TCH and Gander airport is 35 miles distant.

c) Port of Argentia

Argentia is a year round port which serves as a terminal for the CN coastal service and the Port aux Basques-Argentia ferry.

Facilities: There are three wharves ranging from 600 feet to 2671 feet which belong to the U.S. Government.

In addition, there is a 375 foot CN wharf and the CN Ferry Dock. The latter is equipped with a ramp capable of handling sixty-five 40,000 pound tractor trailers.

There are rail and road connections to all marine facilities but the airport nearby is no longer in use.

d) *Port of Marystown*

Marystown is open for navigation year round and is a public harbour under a Ministry of Transport appointed harbour master.

Facilities: There is a Government wharf, 118 feet in length with a depth of 18 feet alongside. The wharf is equipped with a shed and hoist.

Also located here is the Marystown Shipyard Limited, which has a synchrolift with a lifting capacity in excess of 2000 tons. There are two repair and outfitting berths located here with depths alongside from 20 to 24 feet. This shipyard has facilities for ship construction and repair.

Furthermore, Mortier Bay (on which Marystown is located) is one of the few deep water harbours in North America capable of taking loaded VLCC (largest ships afloat).

e) *Port of Port aux Basques*

This port is a public harbour under a harbour master and pilotage for certain ships is compulsory. It is a year round port but drift ice may interrupt the service to North Sydney during the late winter—early spring months. It is an important ferry transfer point for goods and passengers between Nova Scotia and Newfoundland.

Facilities: There are four berths which vary in length from 380 feet to 600 feet with depths alongside of up to 25 feet. The CN berth can accommodate the transfer of railcars, tractor trailers, autos and passengers.

f) *Port of Stephenville*

This is a public harbour under a harbour master and open year round for navigation, although from December to March operations may be curtailed. However, ice-breaker assistance is available upon request. This is a compulsory pilotage port for all ships except those of Canadian registry under 1500 tons.

Facilities: There are two wharves, one of 954 feet and the other of 45 feet with depths alongside of 30 and 28 feet respectively.

g) *Port of Corner Brook*

This is a public harbour under a harbour master. The port is hindered by ice in the winter but with the use of ice-breakers in recent years, the port has been navigable year around. The main exports are newsprint, pulp, fish, cement, gypsum board and the imports are oil, sulphur and general cargo.

Facilities: There are nine berths which vary in length from 280 feet to 600 feet with depths alongside of up to 32 feet. There is also a 35 ton capacity crane at the Bowater's wharf.

There are connecting railway spur lines to some of the wharves and there are paved road connections to the TCH. The nearest airport is at Deer Lake, some 33 miles distant.

h) *Port of St. Barbe*

This port is open to navigation from May until December and is a public harbour. It is important mainly as a terminal for the St. Barbe - Blanc Sablon ferry service.

Facilities: There is a Government wharf 90 feet long with a depth alongside of 20 feet. There is also a freight shed near the wharf.

There is a partially paved highway which connects with the TCH, some 206 miles distant.

i) *Port of Botwood*

This is a public harbour under a harbour master. Although ice is a problem from December to May, the port is now a year round port with ice-breaker assistance. The main imports are fuel oil, soda ash, sulphur and general cargo with the exports being pulp and paper products.

Facilities: There are seven wharves which vary in length from 900 feet to 183 feet, with depths alongside of up to 32 feet. All except two of these wharves are connected with the railway.

Botwood is connected to the TCH by a paved highway and Gander airport is 57 miles distant.

j) *Port of St. Anthony*

This is a public harbour under a harbour master and is open to navigation from May to December. It is the headquarters of the International Grenfell Mission and fishing is the principal industry.

Facilities: There are three wharves which vary in length from 80 feet to 482 feet, with depths alongside of up to 21 feet.

There is a paved landing strip for aircraft and a partially paved highway connecting with the TCH which is 272 miles distant.

k) *Port of Goose Bay*

This is a public harbour under the direction of a harbour master and is navigable from late May to December. It is a terminal point for the shipment of goods and passengers to Northern Labrador.

Facilities: There is an 810 foot wharf with shed space of 48,000 sq. ft., with depths alongside of 28 feet. There is a large coastal wharf which is three sided, with a depth alongside of 24 feet.

The airport at Goose Bay is within easy access of these facilities.

Air Transportation

1. *Island Airports/Airstrips*

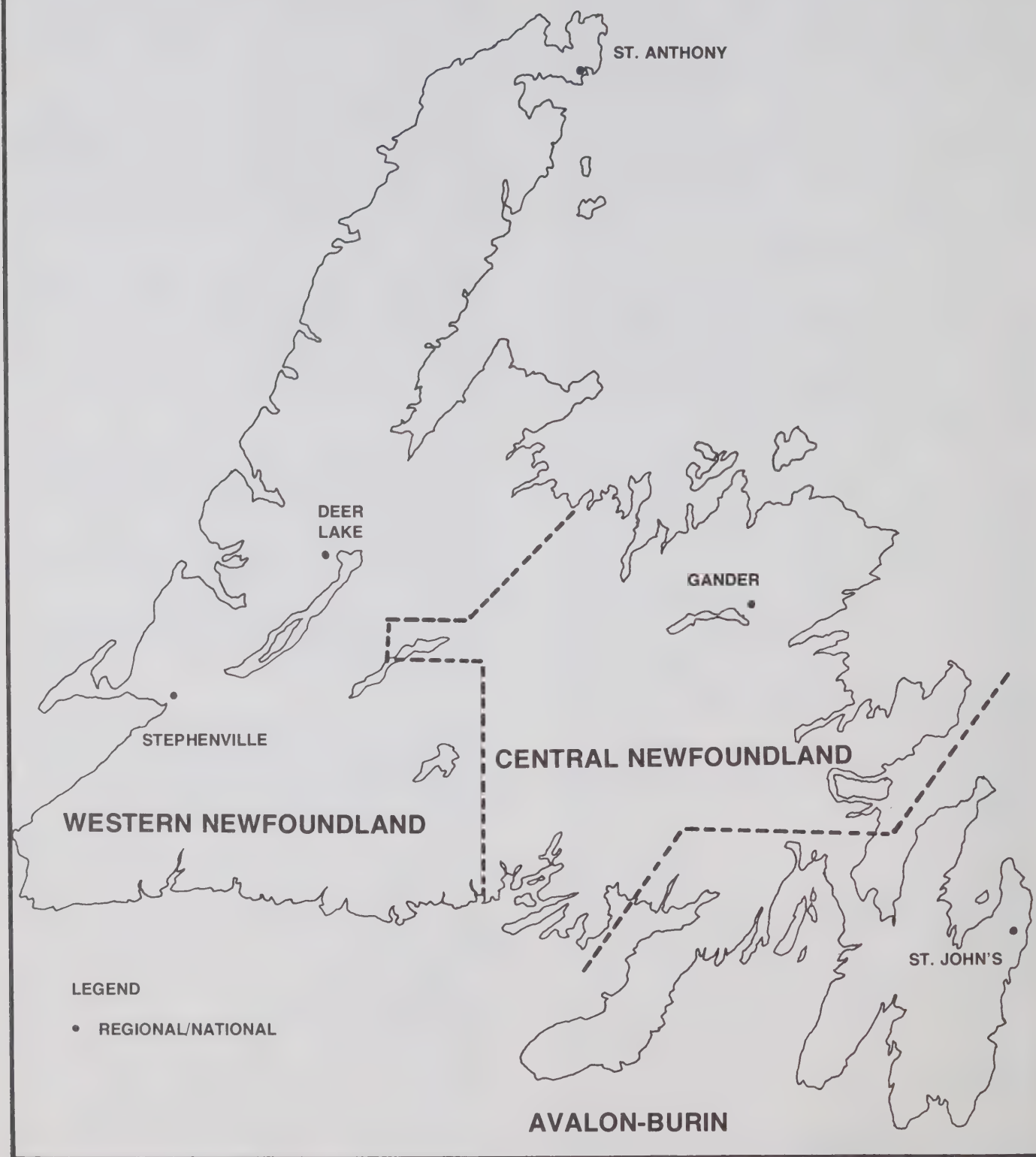
There are five airports on the Island:

- | | |
|-----------------|-------------------------|
| 1) St. John's | National Primary |
| 2) Gander | International |
| 3) Deer Lake | National Secondary |
| 4) Stephenville | International Secondary |
| 5) St. Anthony | Regional |

The locations are illustrated in Figure 3-2.

Figure 3-2

REGIONAL/NATIONAL SYSTEM



The St. John's Airport is served by Air Canada, EPA and several small charter operations. This airport serves the Avalon and Burin Peninsulas and the City of St. John's. It is National Primary as only chartered domestic aircraft destined for international points are permitted to land.

Gander International is Newfoundland's only International airport. Air Canada serves Gander with overseas flights from Halifax to London and return twice per week. Foreign and American charters and scheduled flights, as well as military aircraft of Canada, Britain and Western Allies use the airport for technical, service and refuelling stops. The airport is served by Air Canada and EPA on national routes, and is the headquarters of EPA and Gander Aviation. Air Rescue operations for Newfoundland are also based in Gander.

Both Deer Lake and Stephenville airports serve the Corner Brook area and Western Newfoundland. Stephenville is served by both Air Canada and EPA, while Deer Lake is served only by EPA, and Labrador Airways, which operates to Labrador from the Island.

St. Anthony is served by Labrador Airways.

In addition to the five airports above, there are many smaller strips and water aerodromes on the Island (see Figures 3-3 and 3-4). Some of these are provincially owned, others privately owned. These facilities vary in standard condition and usage.

None of these airstrips is served by scheduled passenger or cargo service. Most of these facilities are only large enough to handle single and light twin engine aircraft. They are used only for emergencies, government activities and private or charter operations.

These airfields are supplemented by seven licensed and five unlicensed water aerodromes (see Figure 3-4). These water aerodromes are located throughout the Island. Various facilities for upkeep, maintenance and supplies exist at each.

2. Labrador Airports

MOT operated national/community airports in Labrador are:

- | | |
|---------------------|------------------------------|
| 1) Goose Bay | National Primary |
| 2) Wabush | National Secondary |
| 3) Churchill Falls | Community Feeder |
| 4) Blanc Sablon | Community Intermediate Label |
| 5) North West River | Community Remote |
| 6) Saglek | Remote (military only) |

The first major aviation development of Labrador was the construction of a military base at Goose Bay by the United States Air Force (U.S.A.F.) during World War II. Ownership of the airport and the responsibility of its operation was accepted by MOT in 1973. The U.S.A.F. left Goose Bay in 1976, and Eastern Provin-

cial Airways, along with Labrador Airways, currently provides service to this airport. International flights from overseas use the airport as an alternative landing site and, as such, the facility is categorized by MOT as an international alternative.

The U.S.A.F. also developed the airstrip at Saglek, but with its withdrawal, the facilities constructed at this community (except the airfield) are no longer being used.

Industrial developments at Wabush and Labrador City, and later at Churchill Falls, necessitated the construction of airports at these locations. Wabush is currently served by Quebecair and Eastern Provincial Airways while only the latter stops at Churchill Falls. The gradual winding down of Phase II of the Churchill Falls development is exerting adverse influence on the load factors at this airport.

The airports located at Blanc Sablon, Quebec and St. Anthony, on the northern tip of Newfoundland, are adjacent to Labrador, but are vital to the provision of aviation service to the Labrador area. Blanc Sablon is currently serviced by Northern Wings, a subsidiary of Quebecair, as well as by Labrador Airways.

The final MOT licensed airstrip in Labrador is at North West River, twenty-five miles east of Goose Bay. The main user of this facility is the Grenfell Mission which has its facilities near the airstrip.

In addition to the above major Labrador Airports, there is a number of smaller strips which must be noted. Rigolet and Nain each have airstrips but the former is unusable while the latter is of poor quality. Airstrips developed at Forteau and Red Bay are also of relatively poor quality.

Labrador also has one licensed and six unlicensed water aerodromes. As on the Island, these facilities are located throughout Labrador and, in some regions, provide the only air facility in the area (see Figure 3-5). The following communities have aerodrome facilities in Labrador:

- Churchill Falls
- Hopedale
- Goose Bay
- Makkovik
- Cartwright
- Mary's Harbour
- Red Bay

3. Air Service in Newfoundland

Newfoundland is served by three air carriers on a year round scheduled basis: Air Canada, EPA and Labrador Airways. In addition there are a number of smaller charter and specialized flying services available.

The three airlines serving Newfoundland each provide services which are complementary. Air Canada connects both Western and Eastern Newfoundland

Figure 3-3

NEWFOUNDLAND AIR STRIPS

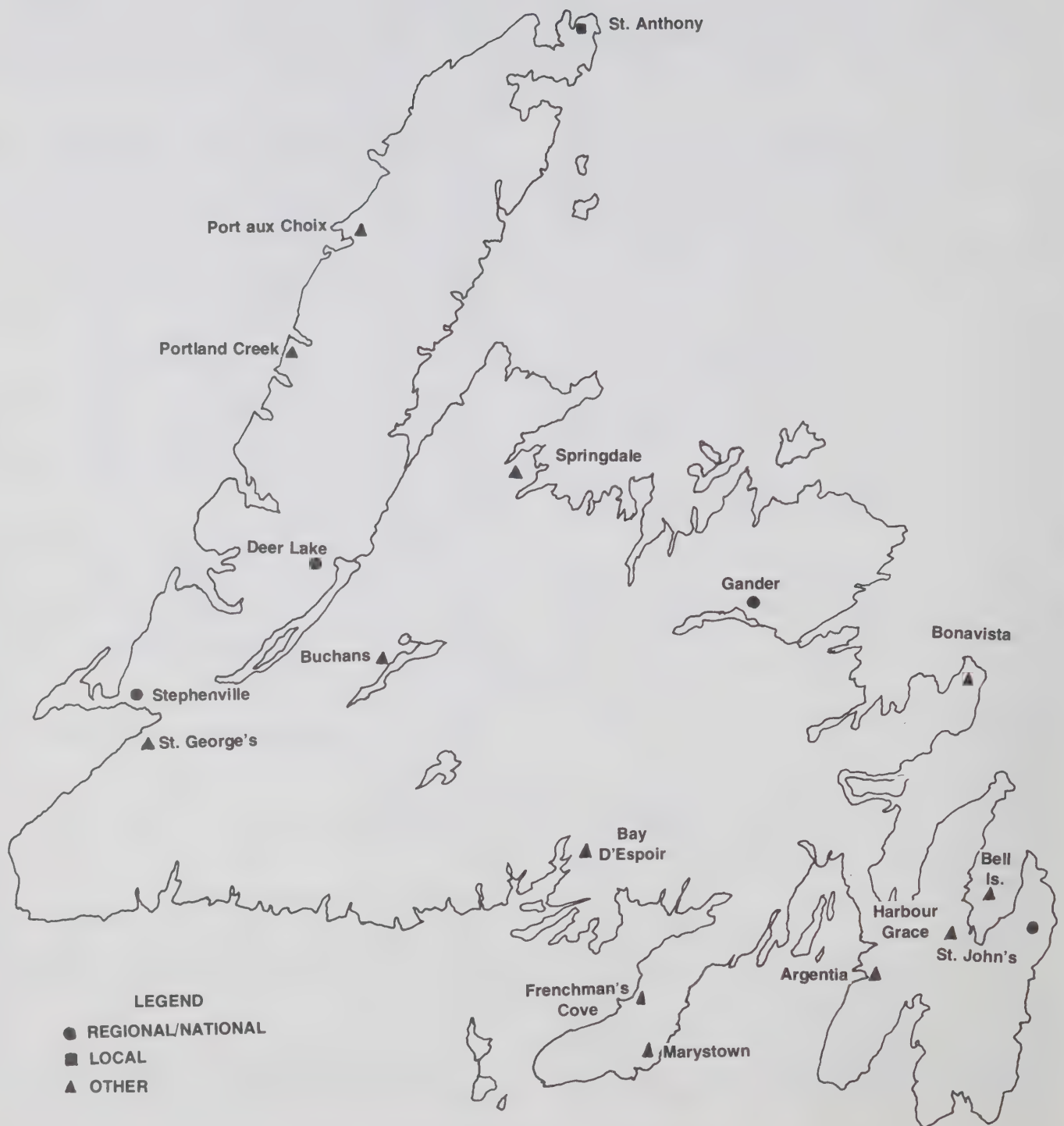


Figure 3-4

NEWFOUNDLAND WATER AERODROMES

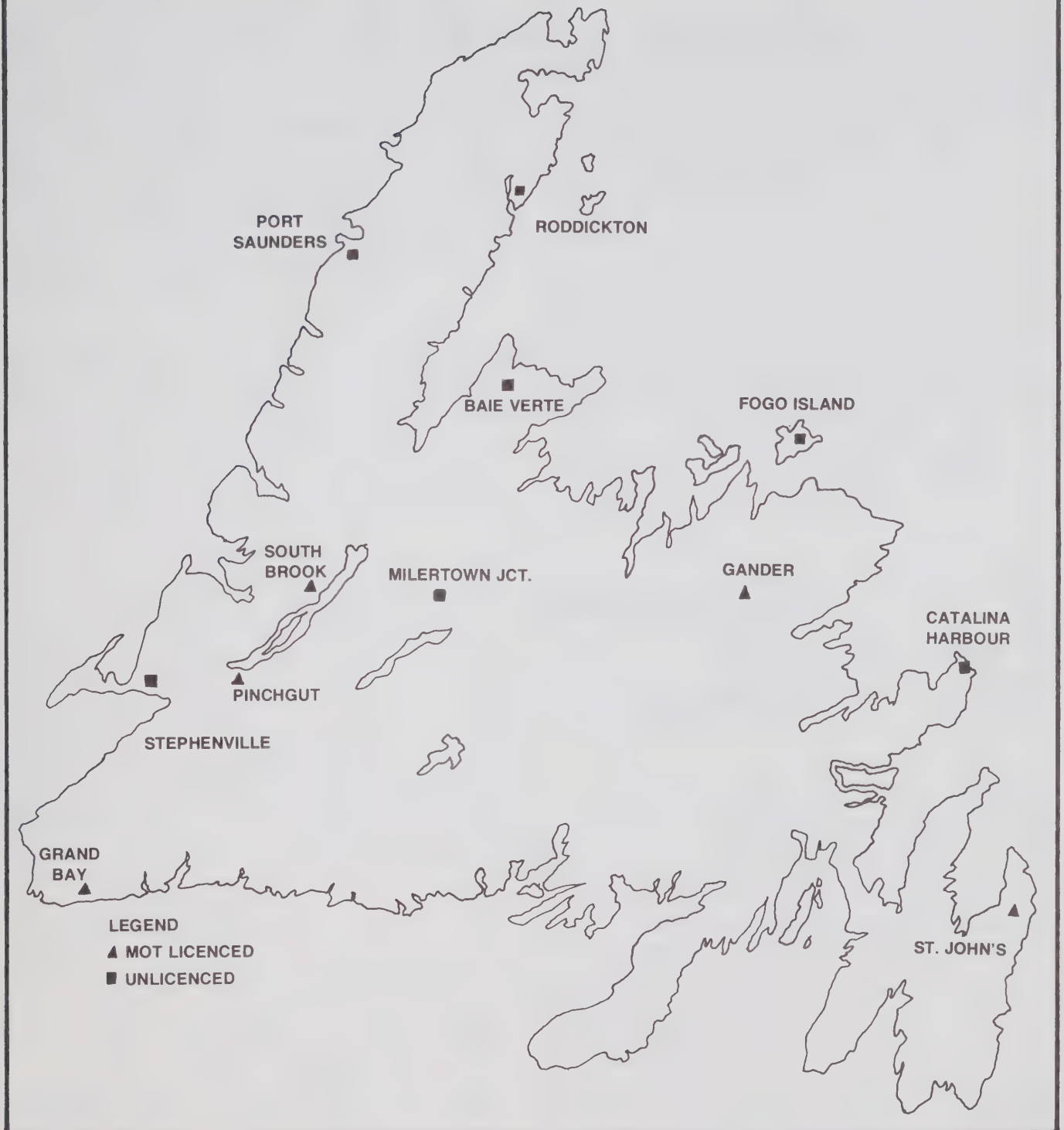
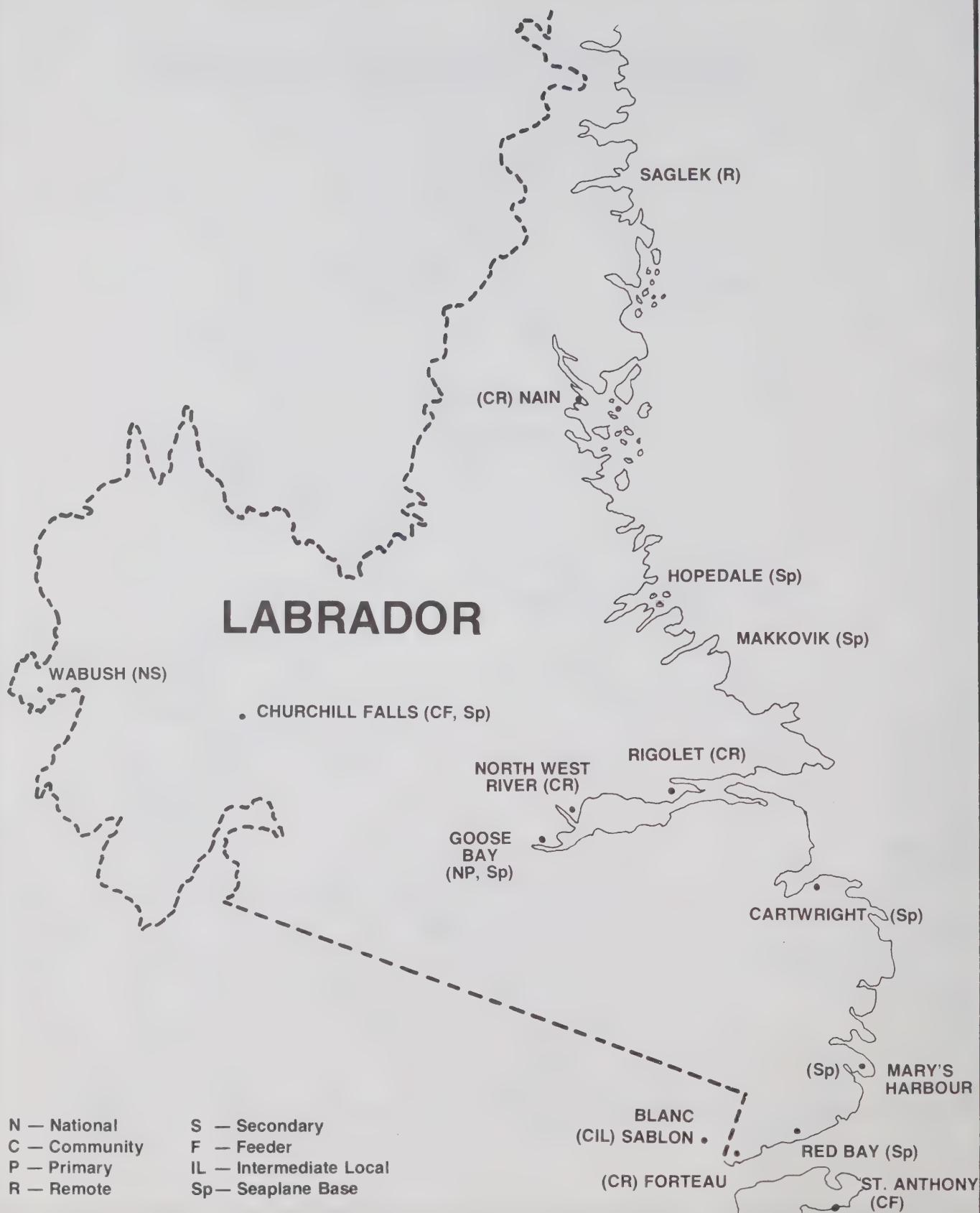


Figure 3-5

LOCAL SERVICE/GENERAL AVIATION SYSTEM



with Halifax and Toronto and international service to Britain from Gander. EPA provides an extensive intra-Island service with connections to Labrador and the mainland. Labrador Airways is the only local service carrier on the Island providing service between Deer Lake, Gander, St. Anthony and points in Labrador and Quebec.

a) Air Canada

Currently, Air Canada operates DC-8 (seating capacity 259) and DC-9 (seating capacity 103) jets on a daily basis through St. John's, Gander and Stephenville. Direct flights to Halifax from St. John's are available three times daily with connections to Boston, the Maritimes, Montreal, Toronto, and other points west. There is a direct flight from St. John's to Toronto and return once daily. One flight per day is available from Gander to/from Halifax and similarly one flight per day to Stephenville. In Gander, Air Canada also operates two international flights per week to/from London, England.

b) Eastern Provincial Airways

From its head office in Gander, EPA officials administer the operation of six B737's (seating capacity 125) and two HS748's (seating capacity 40). The B737's serve St. John's, Gander, Deer Lake and Stephenville. Until 1975, the airline operated a DC-3 to St. Anthony on the northern run, but subsequently relinquished this route to Labrador Airways.

EPA's routes link the major Atlantic Canada centres and Montreal with the four Island airports noted above. Connections with Air Canada flights to major Canadian points west of Montreal and the U.S. are available. Many of EPA's routes are composed of short stage lengths designed to service a relatively large number of centres in close proximity to one another (see Figure 3-6).

Eastbound travellers may travel to Newfoundland three times daily *via* Halifax or daily *via* Labrador. Flights between St. John's and Gander are also three times daily with St. John's being the eastern route terminus for all flights. The airline's maintenance and repair base is located at Gander.

c) Labrador Airways

Labrador Airways operates Class 3 and charter service in Northern Newfoundland and Labrador. Established in 1971, with its head office and maintenance facilities at Goose Bay, the airline took over Newfoundland Air Transport in 1976. Its fleet consists of Otters, Beavers, Twin Otters, Cessnas, Pipers and a Beech Queenair on routes in Northern Newfoundland. These aircraft can be equipped with floats/wheels/skis for operation during most of the year. An inventory of the Company's equipment follows:

| Type of Aircraft | | Number | Seating Capacity |
|------------------|----------------|--------|------------------|
| Aero Commander | 560 E | 1 | 6 |
| Beech Queenair | 8800 | 5 | 9 |
| Cessna | 180 | 4 | 4 |
| Dehavilland | DHC 2 (Beaver) | 6 | 5 |
| Dehavilland | DHC 3 (Otter) | 8 | 8 |

Routes connecting Gander and Deer Lake with St. Anthony, Blanc Sablon and Goose Bay, operate three to five times per week each way. This is the only scheduled air service on the Great Northern Peninsula of Newfoundland. Other services provided by Labrador Airways include a winter airlift of supplies from Flower's Cove, Newfoundland, to the southern coastal communities of Labrador.

d) Gander Aviation

Gander Aviation operates under a Class 3, 4, 9-4 and 7RF license and bases itself in Gander. Although the majority of its work is charter, it does provide a winter passenger and cargo Class 3 (unit toll) service (January - April) to supplement the Fogo Island—Carmanville ferry on the north coast. The Company's fleet consists of Cessnas, Beavers, Otters and Beech Queenair in multi-landing gear configuration. An inventory of the Airline's equipment, along with corresponding charter rates for each type of aircraft, follows:

| Type of Aircraft | | Number | Charter Rates |
|------------------|----------------|--------|---------------|
| Cessna | 180 | 1 | \$.85/mile |
| Dehavilland | DHC 2 (Beaver) | 2 | 1.40/mile |
| Dehavilland | DHC 3 (Otter) | 2 | 2.10/mile |
| Beech Queenair | 8800 | 2 | 1.40/mile |

The unit toll service noted above, connecting Gander to Fogo Island, Change Islands and St. Brendans, operates on a daily basis with as many as four flights per day depending on traffic offering. The one-way fare for each of three routes is \$11.00.

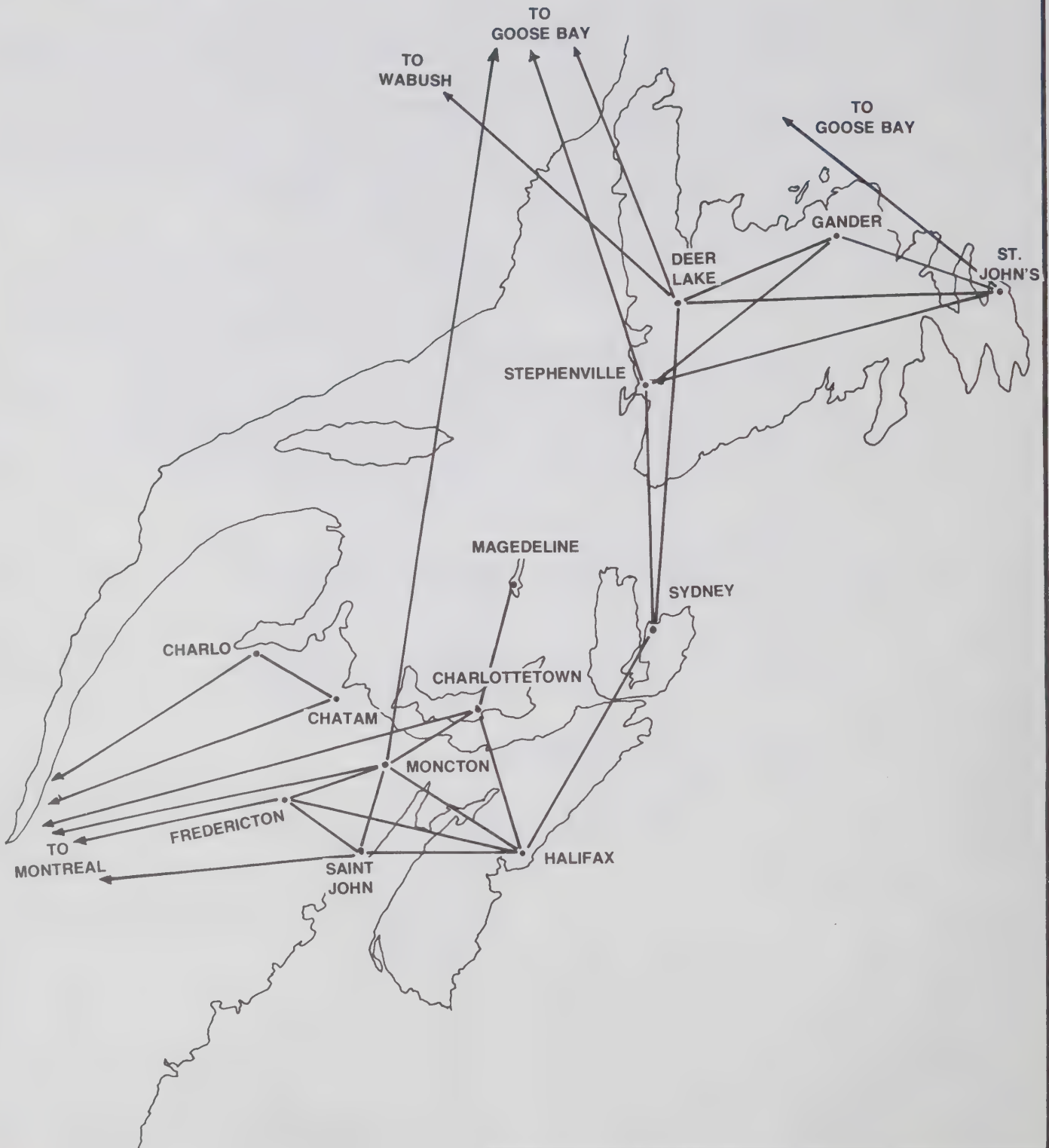
At present, the Company has permission from the CTC to operate a Class 9-3 service (international) on the following routes:

- 1) Gander—St. Pierre
- 2) St. John's—St. Pierre
- 3) Marystown—St. Pierre

Service on these routes has not started, but Company officials reveal that proposed passenger fares are \$55.00 one-way to St. Pierre from Gander and St. John's and \$25.00 one-way from Marystown to St. Pierre.

Figure 3-6

E.P.A. AIR ROUTES



Besides the obvious constraints which inclement weather exerts on the Company's operations, the absence of land-based airstrips on the Newfoundland coast is the most significant problem faced by the Airline. As a result of this situation, the company is unable to land aircraft during the spring thaw or the winter freeze-up periods.

e) *Other Operators*

There are several private and chartered operators providing service under various classes of licenses in Newfoundland.

- *Universal Helicopters*: Universal Helicopters has been operating in the Province since 1963, and provides charter helicopter service to Newfoundland and Labrador as well as to the offshore drilling rigs.
- *Wentzell's Flying Service*: Wentzell's Flying Service, based in Corner Brook, operates under a Class 4, 7RF license. It uses Cessna 185's.
- *Straits Air Limited*: Straits Air Limited is a new operation in Newfoundland at present applying for Class 4, Group A and B licenses. The Company is based in Springdale and uses Cessna 180's and Beavers on floats and skis.
- *Port Aux Basques Air Service*: Based in Port aux Basques, this Company operates Cessna 185's and an Aztec under a Class 4 license.
- *Aztec Aviation Limited*: Aztec Aviation Limited operates under a Class 6 flying school license at St. John's.
- *Government Air Services*: The Government of Newfoundland and Labrador operates Canso Water Bombers on a seasonal basis to fight forest fires. The aircraft are usually based at strategic locations throughout the Province to contain outbreaks of fire during the summer months.

The Government also operates a King Air aircraft for use on Government business and as an emergency ambulance.

4. *Air Services In Labrador*

Three air carriers provide the largest part of the air service in the Labrador area. Two regional carriers, EPA and Quebecair, provide the major component of this service. The remaining air services are provided by Labrador Airways, whose service is confined to Labrador and Northern Newfoundland.

a) *Eastern Provincial Airways*

In Labrador, EPA provides a trunk type service to Wabush, Churchill Falls and Goose Bay, connecting these places with the Island of Newfoundland, and except for Wabush, with Montreal. The larger number of these routes is maintained using B737 aircraft five or more days per week (see Figure 3-7).

b) *Quebecair*

The only point served in Labrador by Quebecair is Wabush, which is tied into the airline's network in the Eastern Quebec Region. The services between Montreal and Wabush is provided with BAC 1-11 (seating capacity 79) and B727 (seating capacity 181) aircraft.

Northern Wings, a subsidiary of Quebecair, operates services between Sept-Iles and Blanc Sablon, Quebec. This service uses DHC-2 and 3, F-27, HS-748 and DC-3 aircraft types, making a variety of stops along the north shore of the Gulf of St. Lawrence. After arriving at Blanc Sablon, this service is then available to people living on the Southern Labrador coast, although there is evidence revealing that use of this route by Labrador residents is minimal (see Figure 3-8).

c) *Labrador Airways*

Established in 1971, Labrador Airways provides air services from Goose Bay to all communities on the Labrador Coast with scheduled service on a frequency of twice per week, year round. The airline provides freight and charter services to the coastal communities and modifies its routes during each of these seasons when traffic is sufficient (see Figure 3-9).

Labrador Airways is at the mercy of the environment in which it is operated. Often the service must be suspended due to inclement weather, and must be totally terminated during the winter freeze-up and spring thaw periods (6 to 8 weeks per year). This period of forced inactivity is primarily owing to the significant lack of land-based airstrips, which, were they developed, would enable the airline to provide year-round service to the coastal communities.

Many of Labrador Airway's aircraft provide a VFR service which, as a result of the unstable and unpredictable weather conditions in Labrador, makes it difficult to maintain a reliable flying schedule. The airline is further constrained in terms of payloads because of the floats and skis which the aircraft are forced to use.

d) *Laurentian Air Services*

Laurentian Air Services offers a charter winter supply airlift service out of Wabush and Schefferville direct to the Labrador coastal communities. The firm operates DC-3 aircraft which have payloads of 5000 lbs., and are able to land with skis from late January to the beginning of May.

Air Freight Services

1. *Newfoundland Air Freight*

The development of air freight transportation to Newfoundland is dependent on the feasibility of an all-freight operation with the new DC-8 freighters.

Figure 3-7

EPA ROUTE STRUCTURE

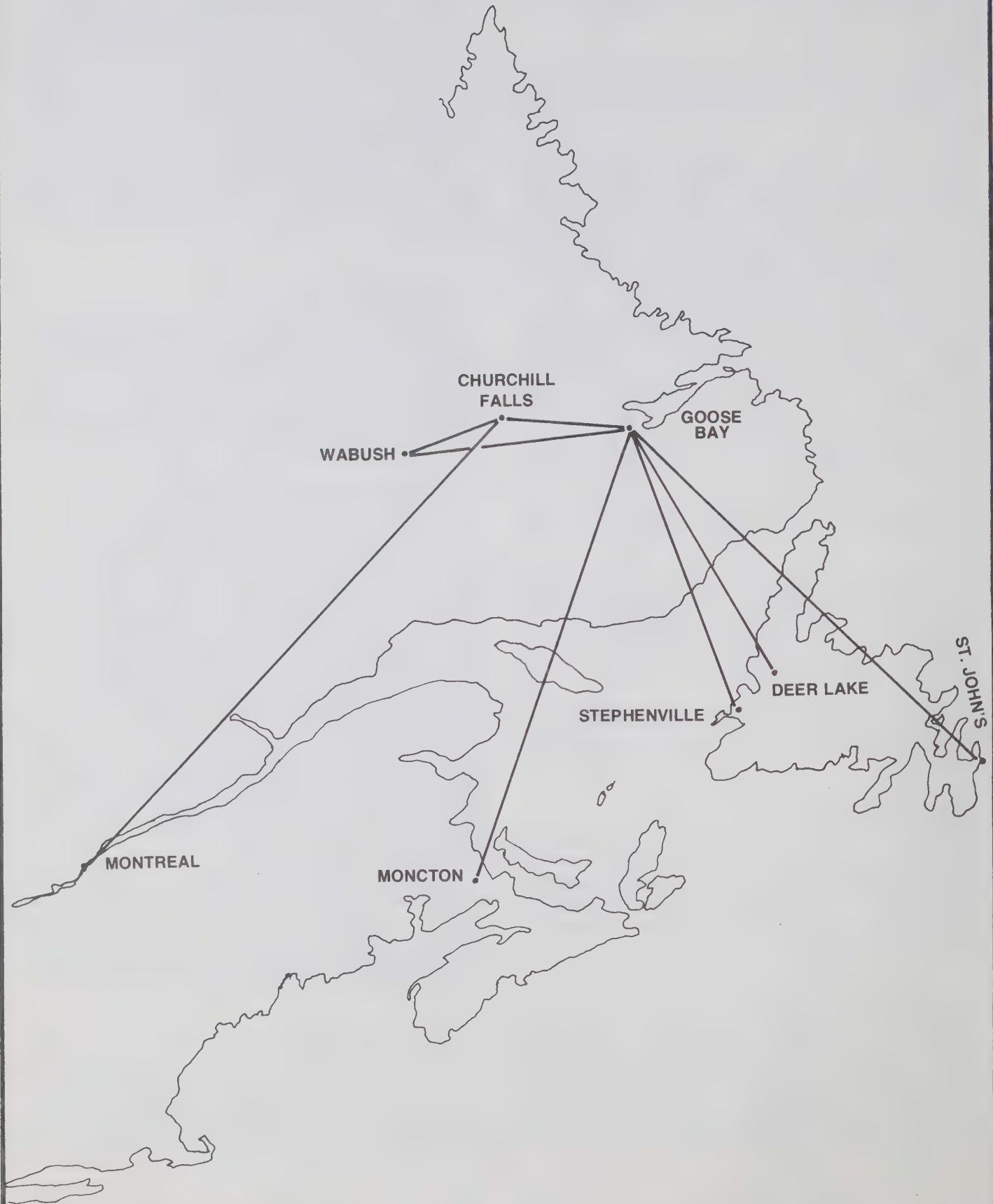


Figure 3-8

QUÉBECAIR ROUTE STRUCTURE

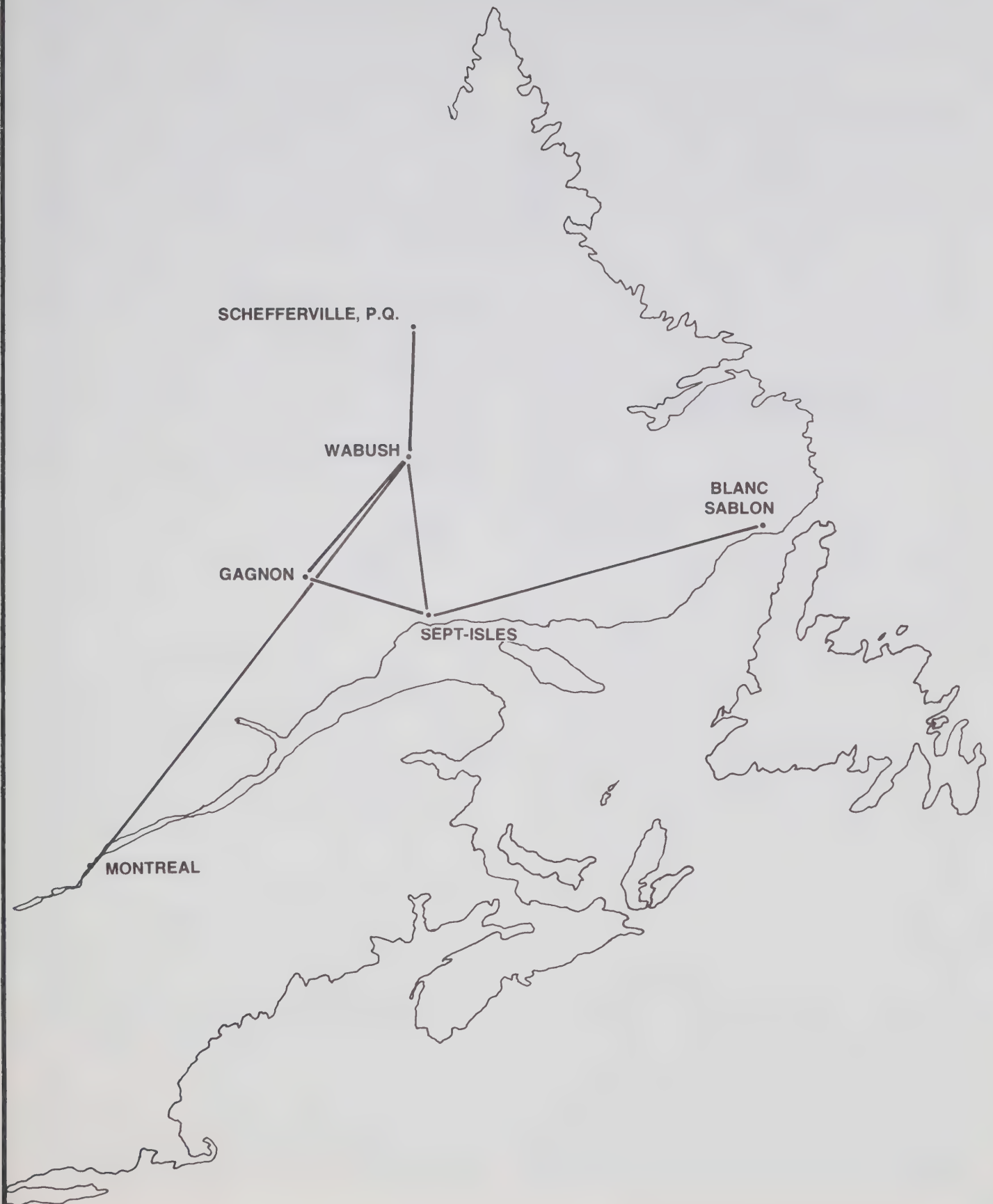
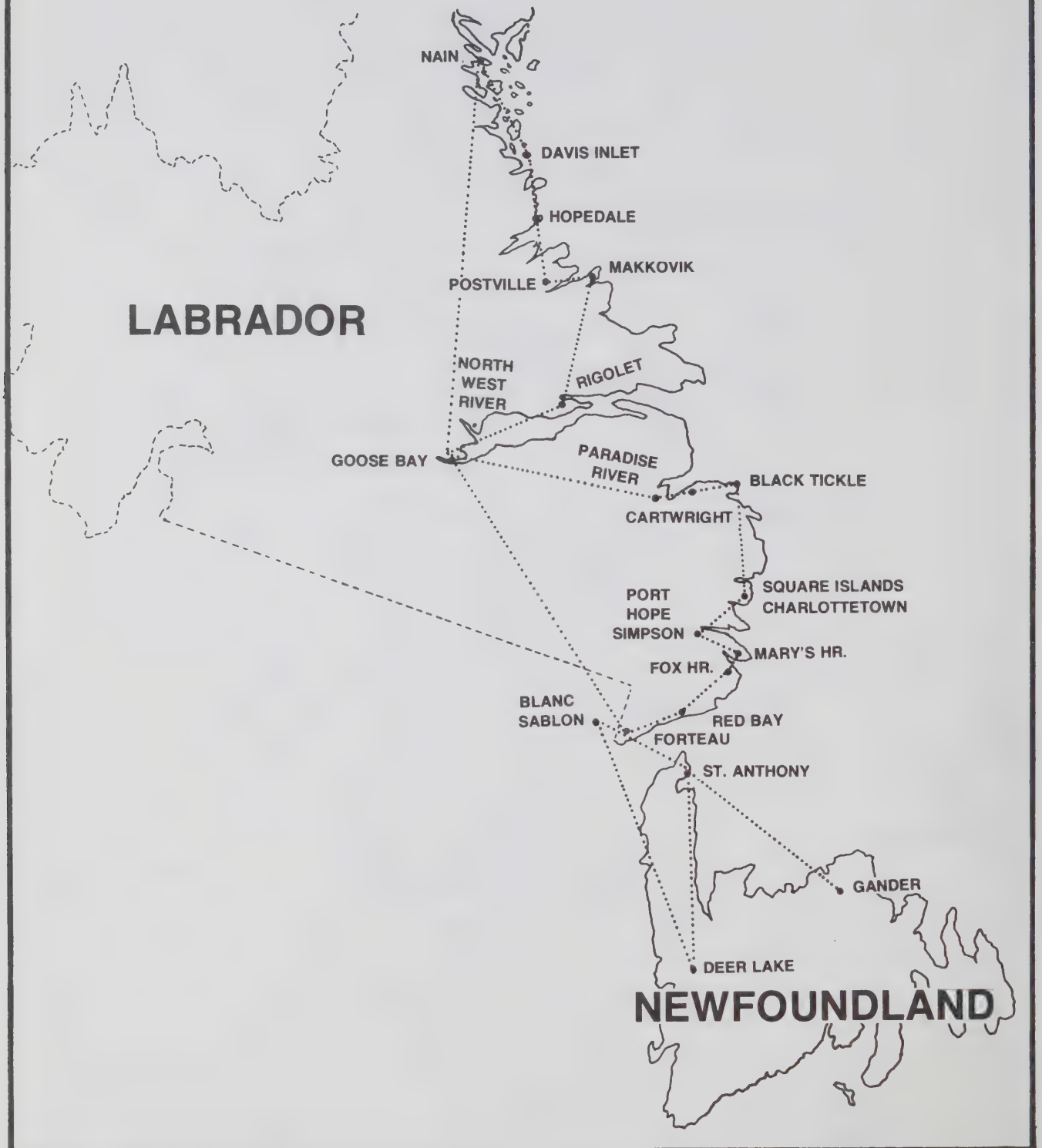


Figure 3-9

LABRADOR AIRWAYS ROUTES 1976



At present, the volume of freight traffic going by air is a small proportion of total air traffic to Newfoundland. It consists largely of emergency shipments of spare parts or of goods where speedy delivery is required. These types of articles are observed to be frequently shipped by air because of their low bulk, high value per unit characteristics. Most commodities shipped to Newfoundland are high bulk, low value per unit goods, and are generally unsuited to air freight transportation. Therefore, these types of goods are found to travel primarily by truck, rail and sea where low value per unit shipments are welcomed.

Most of the air freight to Newfoundland is restructured to the capacity of the "belly" compartments of the passenger aircraft serving the Province. The capacity of these "belly" sections varies according to a number of factors, including the mix of passenger/baggage and the type of cargo offering on each flight, and the weather conditions in Newfoundland at the time of the flight. Airline officials revealed that cargo capacity declines if weather conditions are poor because additional fuel must be taken onboard so that the aircraft is capable of reaching alternative landing sites. The cargo capacity of the passenger aircraft serving Newfoundland, given full passenger loads and good weather conditions, is as follows:

| Aircraft Type | Cargo Capacity (Lbs) |
|---------------|----------------------|
| DC-8-L | 32,000 |
| DC-9 | 10,000 |
| B737 | 10,000 |

In addition to the "belly" compartments of the above passenger aircraft, Air Canada operates DC-8 freighters to St. John's five days per week. This aircraft has a capacity of about 85,000 lbs. and frequently carries non-perishable commodities, including car parts, mail, ship parts and food stuffs. All perishable articles and express freight are shipped in the "belly" sections of the aircraft serving St. John's.

2. Labrador Air Freight

Air freight is used more extensively for shipments of goods within Labrador because the transportation system in the area has not developed to the extent that it has in Newfoundland and other parts of Canada. The CN Coastal Service accounts for movement of most of the freight traffic within coastal Labrador and Labrador Airways provides the remaining capacity for winter food supply shipments to coastal communities.

Three airlines, including EPA, Labrador Airways and Laurentian Air Services, provide air cargo services to points in the interior and coastal regions of Labrador. EPA accounts for most of the air freight traffic destined for coastal Labrador from points out-

side the region. The airline operates a B737 convertible freighter to Goose Bay from Halifax via Moncton, five days per week. On the return trip, the freighter might land in Moncton enroute to Halifax, or alternatively, might use Moncton as the point of origin for future trips to Goose Bay, avoiding Halifax entirely. The actual route structure is dependent on the daily traffic offering at these two centres.

The other two airlines above offer freight services to coastal communities, but account for a small portion of total air cargo traffic to this area. CN Marine provides most of the cargo capacity to coastal Labrador from communities outside the region.

Rail Freight and Express Service in Newfoundland

The railroad transport system in Newfoundland consists of a 3 foot, 6 inch narrow gauge, single track, main line running 547 miles from Port aux Basques to St. John's. At Port aux Basques, the railroad interfaces with the CN at North Sydney, Nova Scotia. In addition to this interface at the Port aux Basques yard, the rail system includes the yard facilities at Corner Brook and St. John's, both of which play prominent roles in the operations of the entire system.

1. Schedules

a) Extra-Newfoundland

Interprovincial rail freight traffic destined to Newfoundland moves by rail to North Sydney. At North Sydney the cars are loaded on to the two rail car ferries, the 'Frederick Carter' and the 'Sir Robert Bond', to cross the 97-mile Cabot Strait to Port aux Basques. These vessels operate on an unscheduled basis, providing service when sufficient traffic to fully load each ship is offering.

b) Intra-Newfoundland

CN provides a minimum of once daily freight service to the communities which are linked by the main rail line. CN officials revealed a number of exceptions to this service schedule, including the following:

- Bonavista Subdivision serviced from Clarenville Wednesday only.
- Argentia and Carbonear Subdivisions served three times weekly from St. John's.
- Stephenville serviced from Corner Brook as required.
- Lewisporte serviced from Bishops Falls daily except Saturday and Sunday.

c) Standard Gauge/Narrow Gauge Interface

At Port aux Basques, the standard gauge cars arriving on the railcar ferries are subsequently interfaced with the Island's narrow gauge railroad. This interface is accomplished by use of the truck to truck or manual car to car transfer procedure.

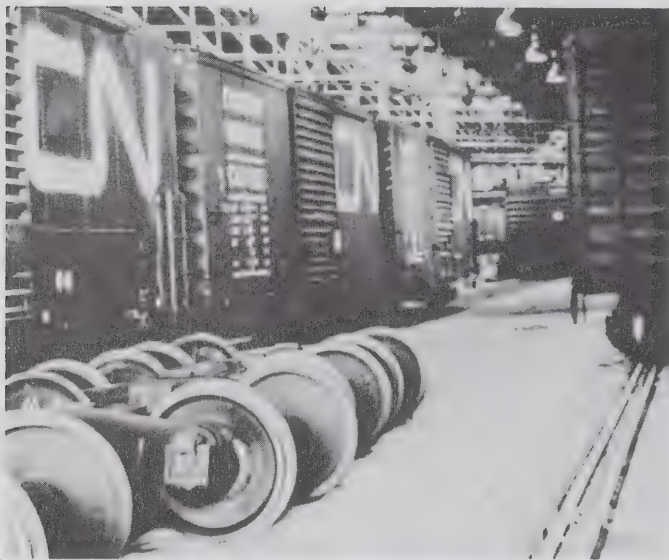
The truck to truck transfer facility is used if the arriving car meets certain conditions with respect to



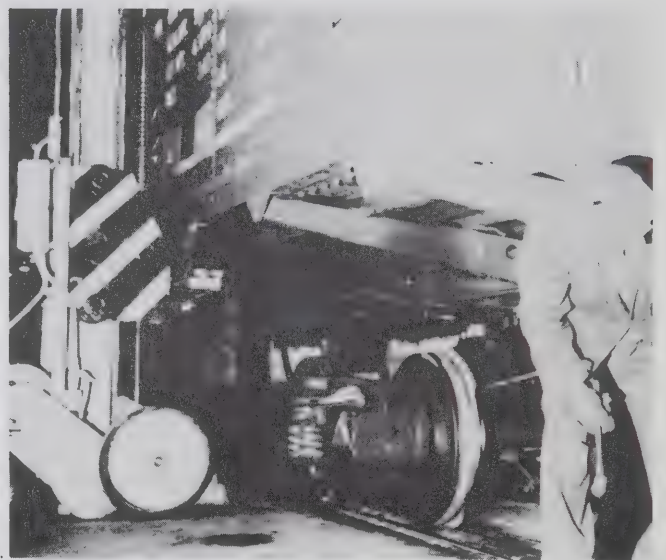
1. Air Canada DC-9
2. Wabush Airport
3. EPA Boeing 737 at St. John's airport
4. Gander Aviation Dehavilland Beaver on the winter ice, Fogo
5. Gander airport
6. Deer Lake airport, EPA
7. Labrador Airways Dehavilland Otter arriving at Hopedale
8. Labrador Airways Otter at Nain



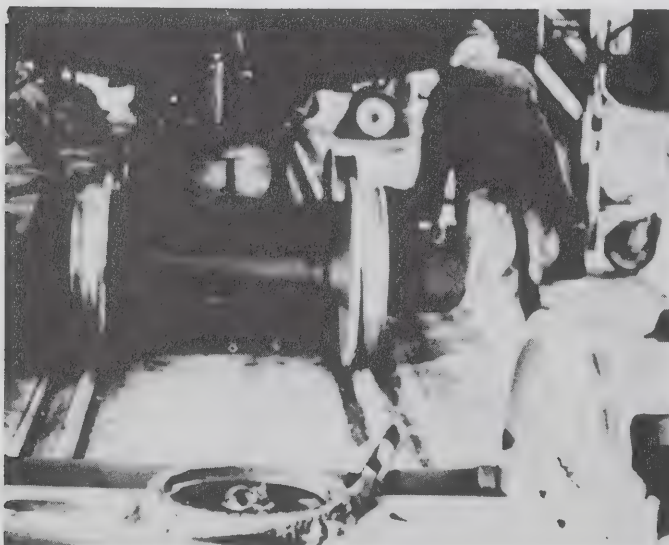
1.



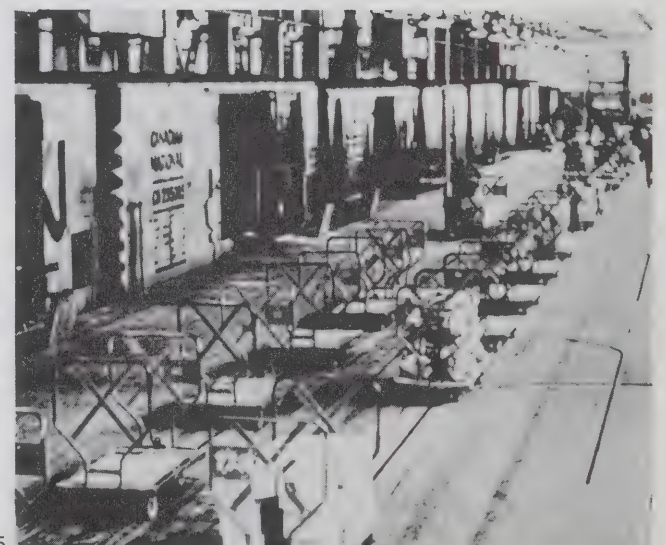
2.



3.

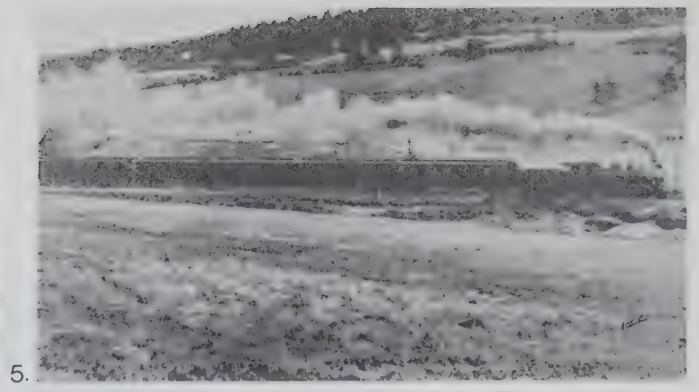
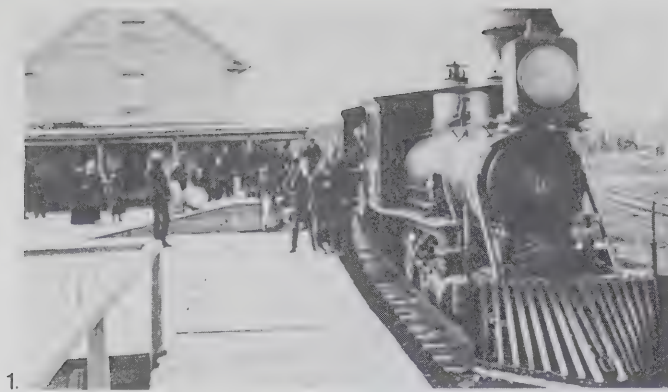


4.



5.

1. Gulf Ferry/Rail interface, Port aux Basques
2. 'Trucks' ready for transfer
3. Truck to truck transfer
4. Truck to truck transfer
5. Freight transfer from wide gauge rail cars, Port aux Basques



1. Whitbourne station, c. 1895
2. Newfoundland Railway observation car., 1943
3. Eastbound at Port aux Basques, c. 1940
4. Deer Lake station, c. 1940
5. Westbound passenger train near Kilbride, c. 1940
6. Eastbound meeting westbound, c. 1940
7. Eastbound outside Port aux Basques, c. 1966
8. Log train
9. CNR engine (narrow gauge diesel)

car ownership, car design and the gross weight. In the transfer process the car body is lifted off its standard gauge wheels and placed on narrow gauge trucks. The standard gauge trucks are then stored to be replaced on the same car when it returns.

Any mainland car which does not meet the conditions for truck to truck transfer, must be accommodated by the car to car procedure where contents of the car are transferred by hand into a narrow gauge Newfoundland car. Additional cars are used if the weight of the car plus its contents exceed the tonnage limits of the main rail line.

At the time of the writing of the Trans-Newfoundland Corridor Transportation Study, the Port aux Basques transfer operations posed the most significant constraint to the movement of rail freight to Newfoundland. At the time, the truck to truck facility handled only 12 cars per 8-hour shift for eastbound traffic, and only 32 cars over the same period for westbound movements. In recognition of this problem, MOT expanded the truck to truck transfer facilities and CN extended operations over a 24 hour day. Both of these changes resulted in an increase in the capacity of the facility to a total of 36 cars per day each way, a capacity well in excess of the current volume of 24 cars per day. The excess capacity of the truck to truck facility is a direct result of the significant decline of rail freight traffic over the past four years.

d) *Fixed Plant*

The rail equipment that CN uses in Newfoundland is composed of 51 diesel-electrical locomotive units and 1715 units of freight equipment.

The Newfoundland Railway was constructed with simple curves without easement spirals. There are over 1700 curves on the main line, constituting 213 miles, or 39% of the 547 miles of main line.

Almost 20% of the main line has curves over 6 degrees. The present maximum operating speed is 40 miles per hour, with many restrictions due to curvature and lack of easement spirals. Approximately 55% of the main line has 1% to 3% grades.

The high proportion of curves and grades, as well as the relatively severe degree of curvature are possibly due to the combination of rugged terrain and crude construction equipment available at the time of construction.

There are 173 highway crossings at grade on the main line between St. John's and Port aux Basques, 34 of which are equipped with automatic crossing protection. The TCH is grade separated at all but five locations where it intersects the railway.

Highway grade crossings on the branch lines are as follows:

Carbonear, 52 crossings

Bonavista, 41 crossings

Lewisporte, 5 crossings

The car capacity of the main line between St. John's and Port aux Basques is 142,000 pounds maximum weight of car and contents. The car capacity is determined by the design of several track bridges.

There are 139 bridges on the main line. Five of these were rated at 142,000 pounds at the time of the Corridor Study but have since been upgraded to 220,000 pounds. Six are rated at less than 177,000 pounds, but one of them is to be upgraded to 220,000 pounds during 1978. Under full impact (40 mph or greater) 68 bridges are rated at less than 220,000 pounds. Current CNR estimates reveal that a train could handle 220,000 pound loads from Port aux Basques to St. John's with replacement of the Exploits River Bridge, at an estimated cost of \$2¼ million.

The Argentia, Lewisporte and Stephenville subdivisions are rated for 142,000 pounds capacity. The Bonavista and Carbonear subdivisions are rated for 100,000 pounds capacity.

Yards and other tracks owned and maintained by the railroad amount to 68.6 miles. There are 664 turnouts on the railroad with 334 in the main track and 330 in yard tracks.

In addition, there are 18 miles of privately owned and maintained tracks served by the CN.

e) *Capital Expenditure On Infrastructure*

Over the past five years, most of the funds allocated for infrastructure improvements have been spent on the replacement of old rail tracks with partially-worn track which has a remaining life of 80 years. In addition, funds have been spent on ballast, ties and additions to the weight capacity of bridges.

These expenditures accounted for about 62% of the total spent in each of the past five years. The remaining expenditures have been incurred on improvements to terminals, sheds and related equipment.

f) *Freight Service*

CN provides rail carload freight service, all other freight is moved by truck at the present time.

Carload freight service is available to customers who require the volume capacity for delivery of specific commodities in large quantities.

To keep Newfoundland's rail freight operations in perspective it should be realized that on an average day in 1976 47.5 carloads were received in Port aux Basques from the mainland for all Newfoundland points. Only 3.9 cars per day were loaded in Newfoundland for mainland points, the remainder returning empty, and 62.7 cars per day were loaded for other points on the Island. The principal destination

for carloads in Newfoundland were Corner Brook (26.2 per cent) and St. John's (29.7 per cent). The average carloadings for the peak month were 128 per cent of the monthly averages.

Express service, provided by Canadian National Transportation Limited (CNTL), effectively provides door to door parcel delivery to the major population centres in Newfoundland. Express movements normally cross the Cabot Strait in containers on the CN passenger ferries.

Delays are incurred when the express shipments arrive at the ferry terminals in boxcars and must be transferred into containers. Another source of delay can occur at Port aux Basques when a shortage of container flatcar loading spots in the shed often necessitates double handling of containers arriving on the ferries.

The primary express and LCL facilities in Newfoundland are located at Port aux Basques, Corner

Brook, Grand Falls and St. John's. Express facilities are also located at Gander, Lewisporte and Stephenville. Additional freight and express sheds are located at virtually all of the stations along the main line and branches of the railway in Newfoundland.

Intra-Newfoundland service is provided by both rail and highway to the various stations. Highway schedules are a combination of point-to-point through trucks, which then break bulk and distribute to smaller stations or deliver to the local pickup and delivery units in the major cities. Pickup and delivery services are provided in St. John's, Gander, Grand Falls, Corner Brook, Deer Lake, Stephenville and Port aux Basques.

Pickup and delivery is provided only for express shipments; LCL shipments must be delivered to the freight shed by the shipper and picked up by the consignees at the destination shed.

Chapter IV

Utilization of Present Transport Services

Introduction

Before any attempt to identify the major system deficiencies can be made and before any plans for future modification to the system can be determined, it is essential that the utilization of existing services be analyzed, trends noted and reasons for mode choice be clearly understood. Subsequent parts of this chapter trace the historical utilization of each mode, namely truck, rail, sea, air, bus and Gulf ferry with respect to the movement of both passengers and freight. Where significant departure from the normal growth pattern has taken place, the reasons for such behaviour are speculated.

Although the Commission had access to a large amount of data both from government sources and some carriers concerned, cases were encountered where valid data was simply unavailable. Where this has occurred the Commission has attempted to synthesize the actual case or where only limited historical data was available, extrapolations were made on the premise of certain basic assumptions. Specific cases are identified as encountered.

Freight Movements

1. *Intra-Provincial*

Figure 4-1 graphically illustrates the major trends that have occurred in intra-provincial transport in recent years. In the case of sea movements, it is noted that the only information available was for the years 1963, 1970, 1973 and 1976, and therefore the trend line was interpolated from these. From Figure 4-1 it can be seen that truck tonnages have increased from 1,912,000 tons in 1964 to an estimated 7,800,000 tons in 1976. Rail on the other hand has declined from 696,000 tons in 1972 to 403,000 in

1976. Sea transport has also declined from 938,000 tons in 1963 to 479,000 tons in 1976.

The increase in truck utilization accompanied by a decline in the other modes can be attributed to improvements made to the highway network over the time frame concerned, less dependence on the coastal boat as a means of basic transport, and a more favourable competitive position *vis-a-vis* the rail operation. Since many of the movements involved are relatively short hauls and often between points of origin and destination which are not accessible by other modes, the shift from rail and sea to highway is likely to continue.

2. *Interprovincial Freight*

a) *Incoming General Cargo*

The total incoming freight has increased in volume since 1961 although there was a slight drop-off in 1976. The periods between 1964 and 1966, and between 1970 and 1975, recorded rapid increases in the volume of incoming goods. Rail freight followed these trends as Figure 4-2 indicates, although there was a decline in tonnage around the late 1960's. Rail carried a peak volume of 585,000 tons in 1974 after which the tonnage plunged to 425,000 tons in 1976. Trucking has risen steadily, particularly since 1970, and with recessions in the other two modes, can be expected to rise in the future. Shipping revealed severe fluctuations between 1962 and 1967 but from that time slight increases were recorded until 1972 when a very slight downward trend appeared.

Generally speaking, trucking was the only mode showing definite increase while sea transport more or less maintained the status quo. For example, sea tonnages in 1961 amounted to 185,000 tons and

Figure 4-1

NEWFOUNDLAND INTRA PROVINCIAL FREIGHT

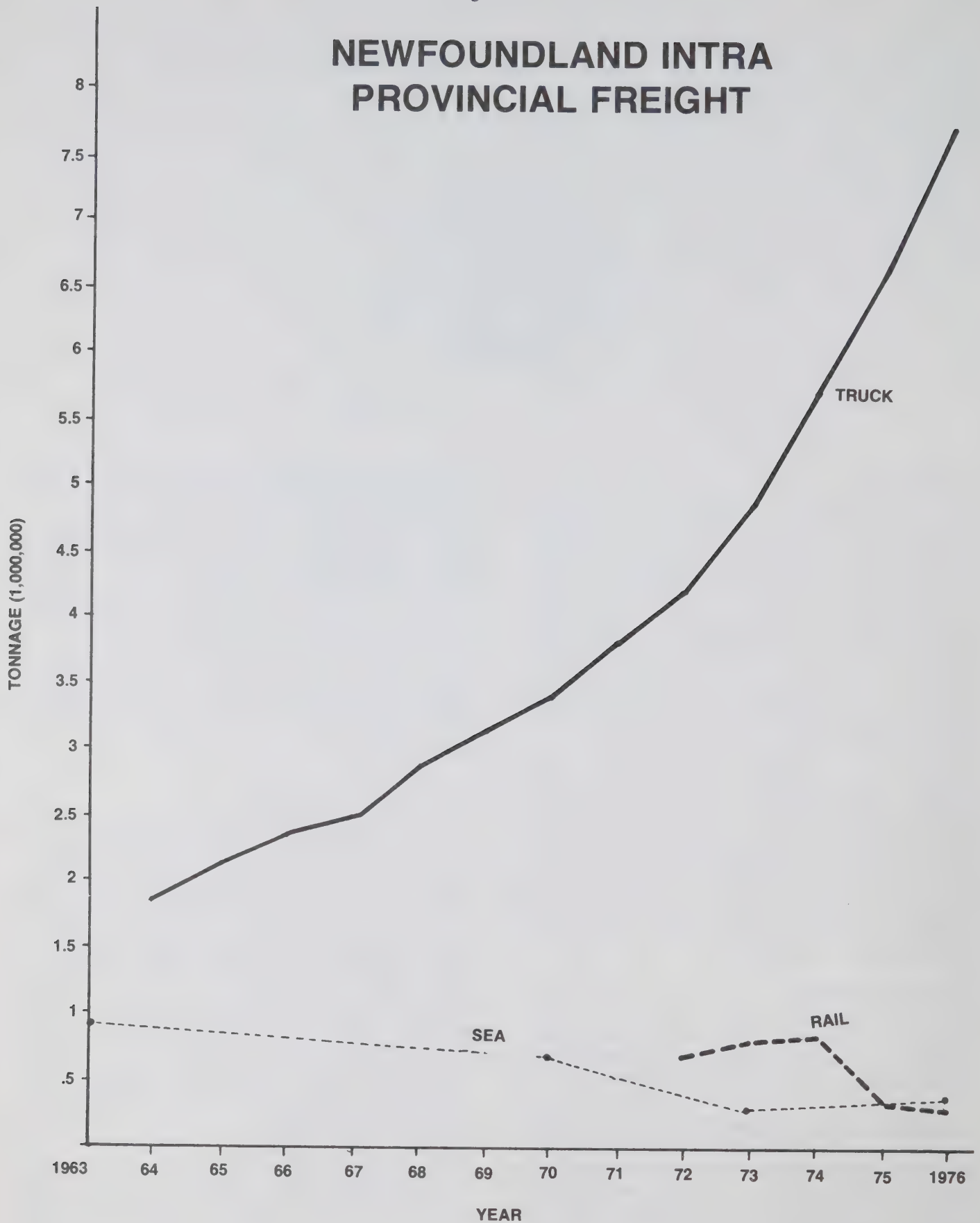
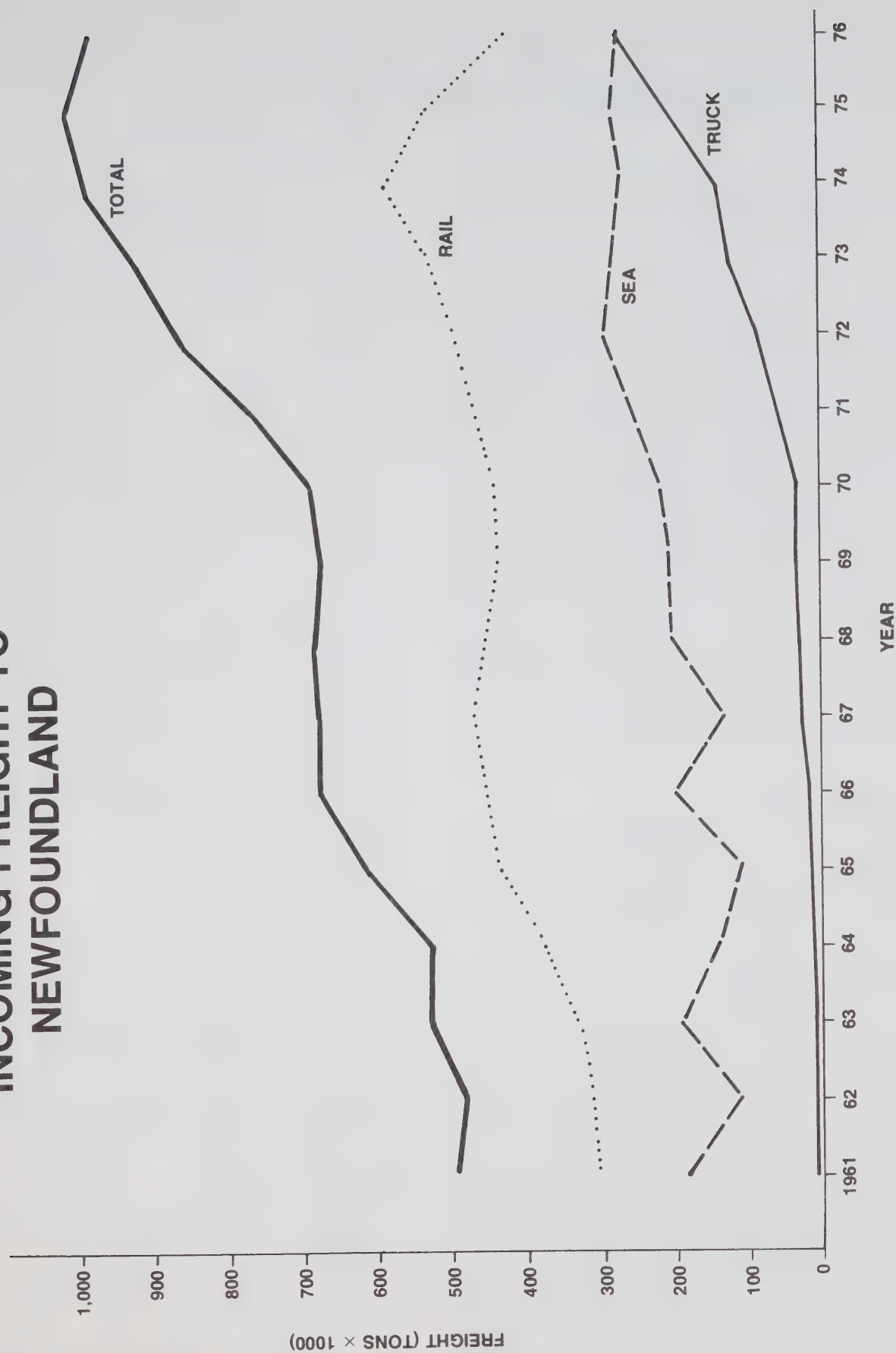


Figure 4-2

INCOMING FREIGHT TO NEWFOUNDLAND



265,000 tons in 1976 for an average annual growth rate of 2.9% over the 15 year period.

The exceptionally large increase in truck traffic since 1970 is accounted for by the fact that up until that time there was a severe impedence to truck travel caused by (i) the inability of the Gulf ferries to handle large trucks and (ii) the rate structure for carriage of trucks on the ferries which effectively priced trucking out of the market. The removal of these obstacles has seen the satisfaction of what was a very large latent demand.

b) Outgoing General Freight

Figure 4-3 indicates that trucking activity has taken a substantial jump since 1970 in the transport of freight from the Province, with the tonnage rising from 2000 tons in 1965 to 136,028 tons in 1976. Rail tonnages reached a peak in 1974 when 97,000 tons of freight were carried out of the Island. By 1976, rail tonnages had declined to 70,000 tons.

Historically speaking, trucking has been on the increase while rail has experienced recent declines. Sea transport has declined somewhat, but still maintains an important function as a transportation mode.

The relatively large increase in the amount of truck traffic can be directly attributed to the capture by this mode of the export of fish products. Characteristics of the trucking industry have apparently met the requirements of the fishing industry to such a degree that all other modes have been virtually displaced. Another significant factor which influenced the increase in truck traffic was the extension of the ARFAA to the trucking industry.

Traffic Zone System

In order to analyze traffic data pertaining to the movement of both freight and passengers in a realistic manner a traffic zone system was devised. A map showing the boundaries of these zones is given in Figure 4-4.

Mode Utilization: Sea

1. Incoming Sea Freight

Sea freight incoming to Newfoundland is split into equal proportions between Maritime and non-Maritime origins, the quantities being 11,837,500 tons and 1,822,200 tons respectively. The breakdown by specific origin in Figure 4-5 indicates that Nova Scotia, excluding North Sydney, and the United States provide 28% and 27% respectively of incoming sea freight, while Montreal and North Sydney are sources for 14% and 11% respectively. The remaining 676,605 tons (20%) of sea freight came from Quebec (excluding Montreal), New Brunswick, Ontario and P.E.I. In many cases where there were large tonnages coming from a particular zone it was found that they were usually destined for specific areas and com-

posed of a few basic commodities. The major destinations and commodities have been identified and enumerated in Table 4-1 and Figure 4-6. These commodities account for 74% (2,647,136 tons) of freight coming by sea.

Table 4-1 Major Destinations and Origins of Incoming Sea Freight

| Origin | Total Tonnage | Zonal Destination | Major (Tons) Volume | Tonnage & Commodity |
|---------------|---------------|-------------------|---------------------|-----------------------|
| North Sydney | 406,289 | 6 | 392,677 | 248,270 manu. & misc. |
| Nova Scotia | 1,011,500 | 1 | 378,654 | 345,595 gasoline |
| Nova Scotia | | 8 | 184,181 | 157,013 gasoline |
| Nova Scotia | | 15 | 123,921 | 117,410 gasoline |
| New Brunswick | 272,241 | 1 | 171,388 | 171,388 gasoline |
| Montreal | 505,557 | 1 | 200,199 | 131,520 manu. & misc. |
| Montreal | | 8 | 170,313 | 110,303 gasoline |
| Quebec | 297,781 | 2 | 113,093 | 113,093 gasoline |
| Ontario | 82,684 | 1 | 57,424 | 23,818 pdts. of mine |
| Ontario | | 1 | | 11,173 manu. & misc. |
| United States | 954,299 | 2 | 855,286 | 823,602 pdts. of mine |

Gasoline accounts for 1,014,802 tons (29%) of total incoming sea freight, products of mines for 847,420 tons (24%) and manufactures and miscellaneous for 390,963 tons (11%) for a total of 64% of all sea freight. The remaining 36% is distributed between the other major commodity classifications and traffic zones.

Clearly, over 50% of sea mode freight is composed of gasoline and products of mines, while another 88,148 tons of manufactures and miscellaneous was shipped to Goose Bay from Nova Scotia (excluding North Sydney).

2. Intra-Sea Freight

In 1976, a total of 479,234 tons of sea freight originated in Newfoundland for intra-provincial transfer. Of this, 405,291 tons were made up of 207,978 tons of gasoline and petroleum products and 197,313 tons of forest products originating from three zones. The details of these movements are illustrated in Table 4-2 from which we can see that forest products came from zone 18 (Goose Bay), destined for zone 7 (Stephenville), while the major gasoline and petroleum movements were from zone 2 to zone 11/12 and zone 1 as well as within zone 2. Significant transfers also occurred between zone 1 and zones 1, 4 and 14. Figure 4-7 graphically depicts the zonal origins of intra freight and it is noted that fully 97% of all intra sea freight originates in three zones.

The vast majority of intra-provincial sea freight was shipped to the three major origins detailed in Figure 4-8. These 197,876 tons of forest products shipped from Goose Bay to Stephenville and 54,236 tons of

Figure 4-3

OUTBOUND FREIGHT FROM NEWFOUNDLAND

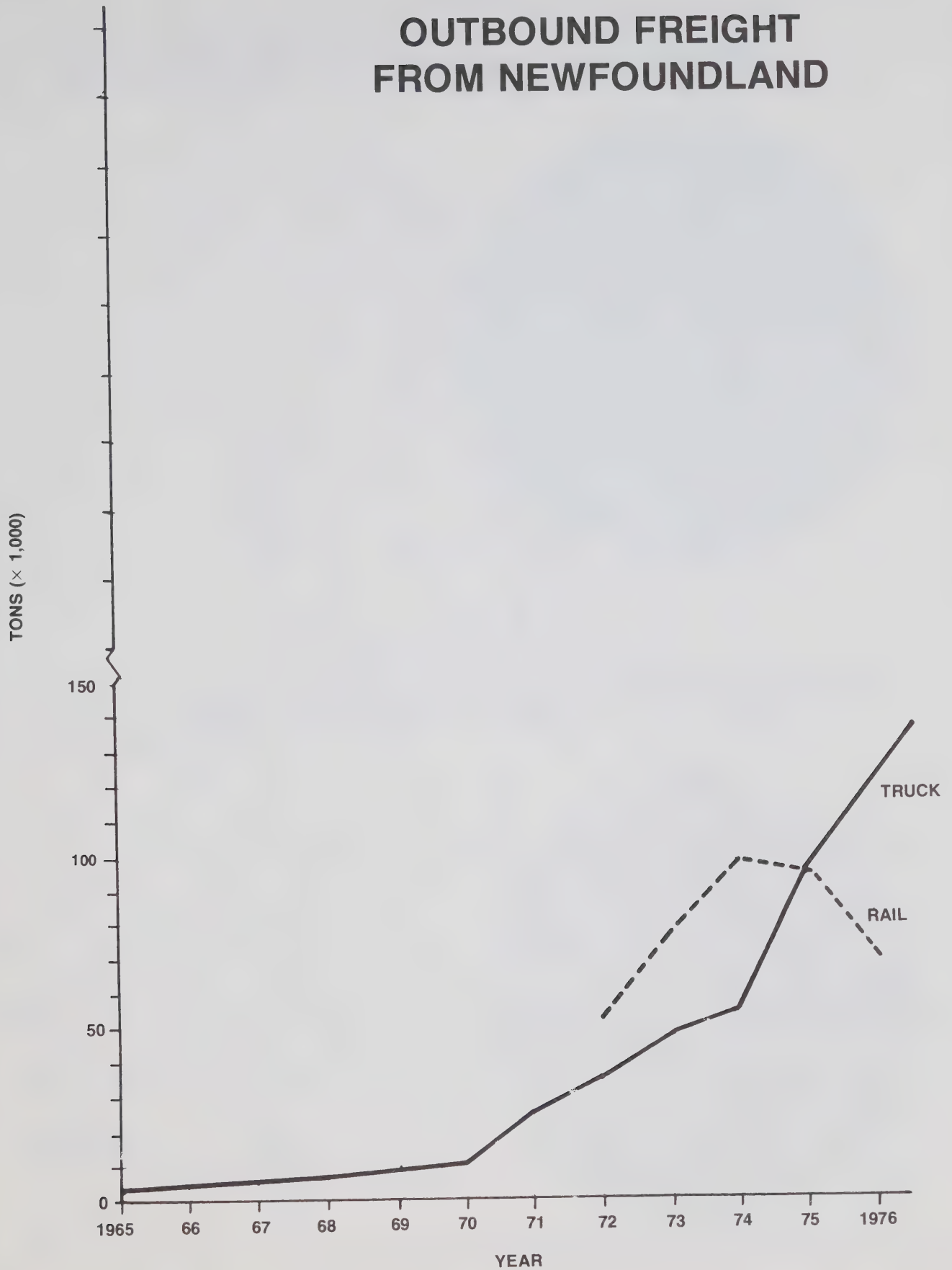


Figure 4-4

NEWFOUNDLAND TRAFFIC ZONES



Figure 4-5

ORIGINS OF SEA FREIGHT INCOMING TO NEWFOUNDLAND BY PERCENTAGE

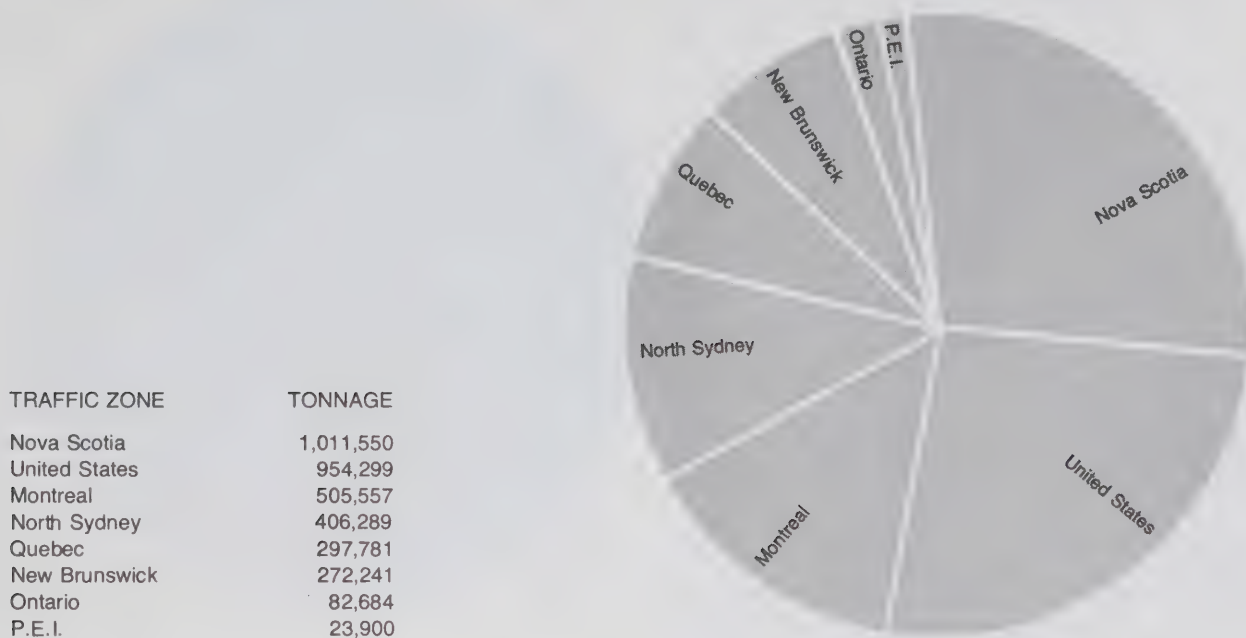


Figure 4-6

DESTINATION OF SEA FREIGHT INCOMING TO NEWFOUNDLAND BY PERCENTAGE

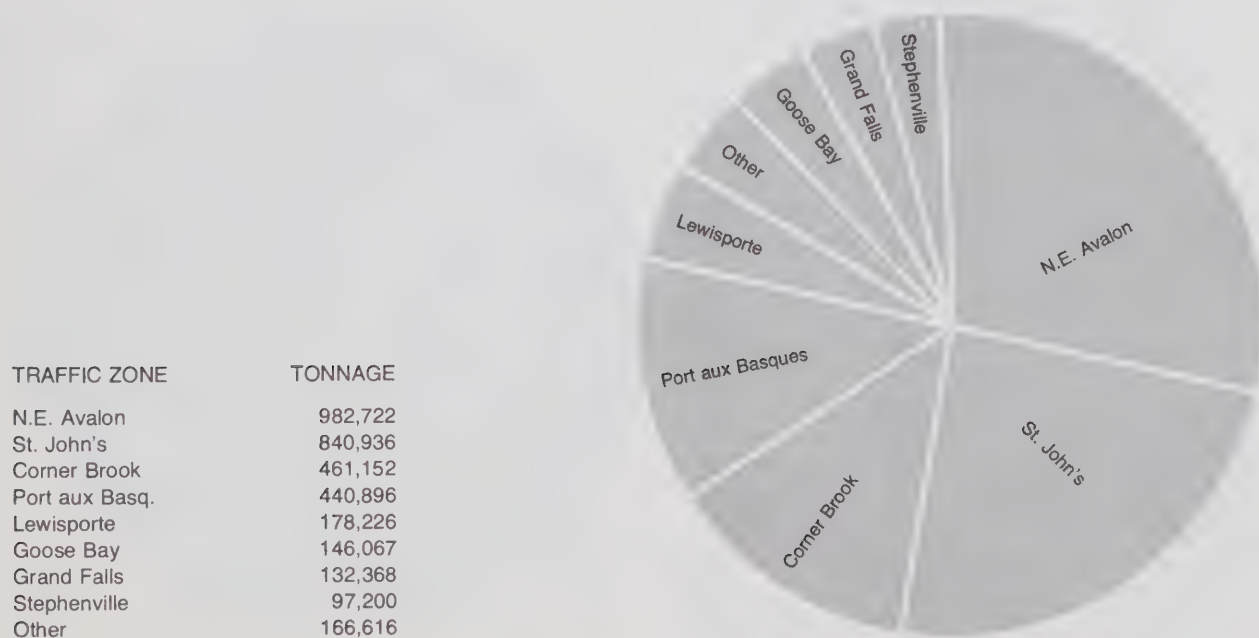


Figure 4-7

NEWFOUNDLAND ORIGINS OF INTRA SEA FREIGHT BY PERCENTAGE

| TRAFFIC ZONE | TONNAGE |
|------------------|---------|
| Goose Bay | 201,016 |
| N.E. Avalon | 175,786 |
| St. John's | 87,206 |
| Port aux Basques | 4,961 |
| Lewisporte | 4,882 |
| Southern Shore | 3,438 |
| South Coast | 1,006 |
| Burin Peninsula | 426 |
| Cornier Brook | 391 |
| Stephenville | 88 |
| Bonavista | 26 |
| Baie Verte | 8 |

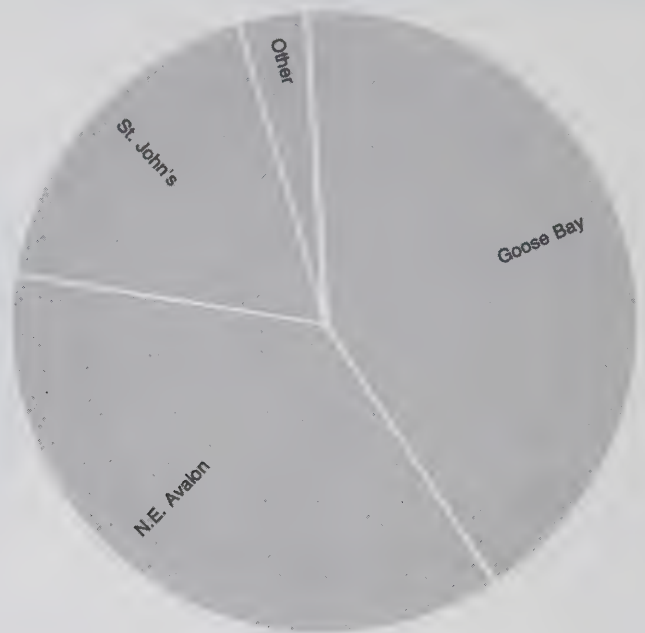


Figure 4-8

NEWFOUNDLAND DESTINATIONS OF INTRA SEA FREIGHT BY PERCENTAGE

| TRAFFIC ZONE | TONNAGE |
|--------------|---------|
| Stephenville | 200,901 |
| N.E. Avalon | 75,527 |
| Grand Falls | 60,474 |
| St. John's | 37,034 |
| South Coast | 27,404 |
| Bonavista | 26,741 |
| Other | 21,688 |
| Goose Bay | 18,288 |
| Baie Verte | 11,177 |

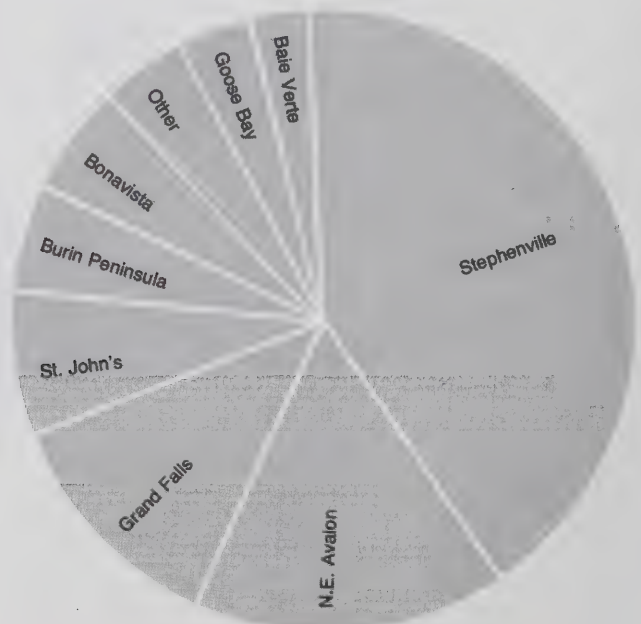


Table 4-2 Major Origins of Intra Freight

| Zone | Total Outgoing | Tonnage | Zonal Destination | Commodity |
|------|----------------|---------|-------------------|--------------|
| 1 | 87,206 | 10,837 | 1 | Gasoline |
| | | 19,101 | 4 | Gasoline |
| | | 25,630 | 14 | Gasoline |
| 2 | 175,786 | 33,488 | 1 | Gasoline |
| | | 64,686 | 2 | Gasoline |
| | | 54,236 | 11/12 | Gasoline |
| 18 | 201,016 | 197,313 | 7 | Forest pdts. |

gasoline and petroleum products shipped from N.E. Avalon to the Grand Falls/Botwood area. An additional 64,686 tons of the same were shipped internally in zone 2. There were 19,101 tons of gasoline and petroleum products sent from zone 1 to zone 4 (Burin Peninsula) and 5477 tons of manufactures and miscellaneous transported from St. John's to Goose Bay. In all but the latter case, these few commodities composed the major movements in their respective zones. In Goose Bay manufactures and miscellaneous made up 30% of the total. In each example the remaining minor tonnages were distributed over several commodity types.

3. Outbound Sea Freight

A total of 2,370,375 tons of sea freight was shipped from Newfoundland in 1976, some 89% of which originated in four major areas as illustrated in Table 4-3. In order of decreasing magnitude the zones were 2, 7, 11/12 and 8, but zone 2 (N.E. Avalon) was by far the more important, exporting 874,776 tons of freight (Figure 4-9). From zone 2 there were 361,158 tons of gasoline and petroleum products exported, 253,151 tons to Quebec, 74,379 tons to Montreal and 33,628 tons to Nova Scotia. There were 230,734 tons of products of mines exported, 140,779 tons of which were destined for Quebec and 89,955 tons for Montreal. The 74,103 tons of manufactures and miscellaneous were shipped to Quebec.

The major sea exports from zone 7 (Stephenville) was 600,248 tons of products of mines, 445,936 tons of which went to the United States and 154,312 tons to Montreal. There were an additional 103,072 tons of manufactures and miscellaneous shipped to the United States.

Of the 247,117 tons of manufactures and miscellaneous commodities shipped from Corner Brook some 239,862 tons were shipped to the United States. A total of 286,685 tons were exported by sea from the Grand Falls/Botwood area composed of 225,328 tons of manufactures and miscellaneous and 55,347 tons of products of mines. The remaining traffic zones had tonnages that varied between 4 and 79,387 tons. St. John's exported 29,341 tons of products of mines to

Table 4-3 Newfoundland Origins of Outbound Sea Freight—1976

| Origin | Tonnage | Zonal Destination | Commodity and Tonnage |
|------------|---------|--|---------------------------------------|
| Zone 2 | 874,776 | 20B (Nova Scotia excluding North Sydney) | Gasoline & Petroleum Products 33,628 |
| | | 23A (Montreal) | Gasoline & Petroleum Products 74,379 |
| | | 23B (Quebec excluding Montreal) | Gasoline & Petroleum Products 253,151 |
| | | 23A (Montreal) | Pdts. of Mines 89,955 |
| | | 23B (Quebec excluding Montreal) | Pdts. of Mines 140,779 |
| | | 23B — | Manu. & Misc. 74,103 |
| Zone 7 | 703,320 | 23A — | Pdts. of Mines 154,312 |
| | | 26 (United States) | Pdts. of Mines 445,936 |
| | | 26 " | Manu. & Misc. 103,072 |
| Zone 11/12 | 286,685 | 26 " | Manu. & Misc. 225,328 |
| | | 26 " | Pdts. of Mines 55,347 |
| Zone 8 | 247,117 | 26 " | Manu. & Misc. 239,862 |
| Zone 16 | 79,387 | 23B — | Manu. & Misc. 24,895 |
| Zone 6 | 62,797 | 20A (North Sydney) | Manu. & Misc. 52,234 |
| Zone 4 | 56,488 | 23B — | Pdts. of Mines 48,946 |
| Zone 1 | 55,469 | 26 — | Pdts. of Mines 29,341 |

the United States, the Burin Peninsula exported 48,946 tons of the same to Quebec. Port aux Basques exported 52,234 tons of manufactures and miscellaneous products to North Sydney. From zone 16 there were 24,895 tons of products of mines exported by sea to Quebec and 48,942 tons of the same sent to the United States.

Mode Utilization: Rail

In 1976 there were some 402,926 tons of freight brought into Newfoundland on the CN railways and 71,832 tons carried out. A total of 395,704 tons were transported between points on the Island for a maximum of 870,704 tons. The figures exclude coastal freight which has been omitted in the following analysis.

1. Incoming Rail Freight

The incoming tonnages and major origins/destinations of these goods are dealt with first. The majority of rail freight incoming to Newfoundland comes from five major areas: Ontario; New Brunswick; Quebec excluding Montreal; Alberta, Manitoba, Saskatchewan and British Columbia; and Nova Scotia excluding North Sydney. These origins are illustrated in Figure 4-10 and account for 335,406 tons of freight, roughly 83% of the total incoming. The bulk of the remaining 17% came from the United States and Montreal.

The major commodity origins and tonnages are detailed in Figure 4-11. The main body of rail freight is of non-Maritime origins with only 35% originating in the Maritimes. The only commodities of importance coming from the Maritime provinces are petroleum products, vehicles and machinery, forest products

Figure 4-9

NEWFOUNDLAND ORIGINS OF OUTBOUND SEA FREIGHT — 1976

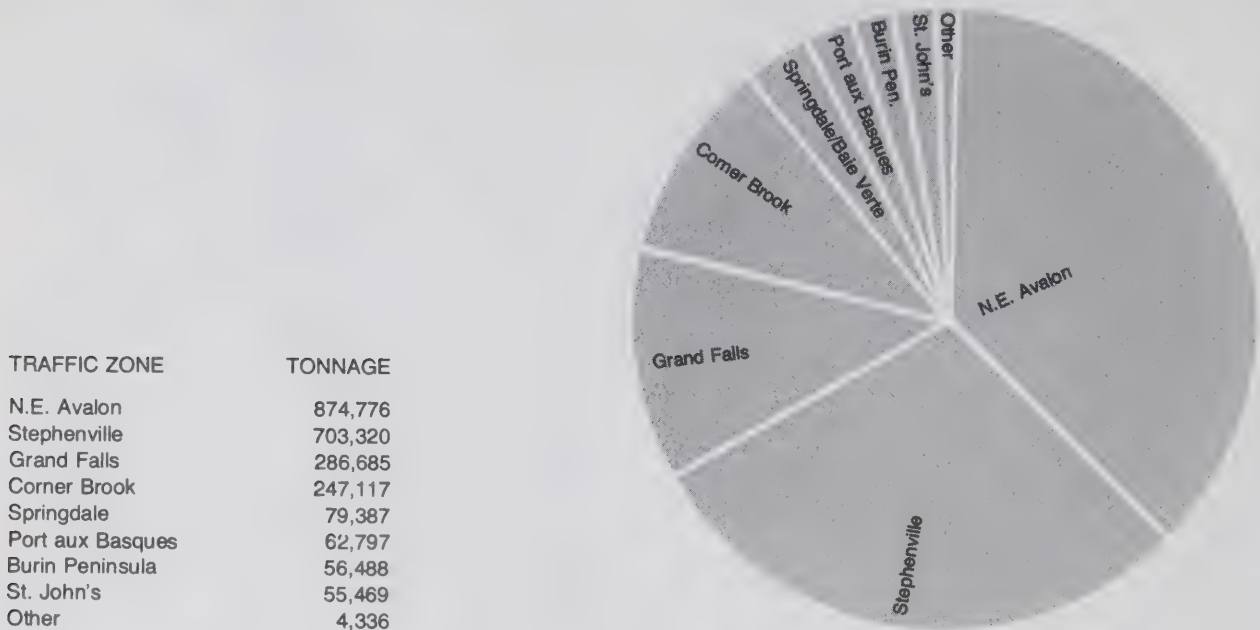
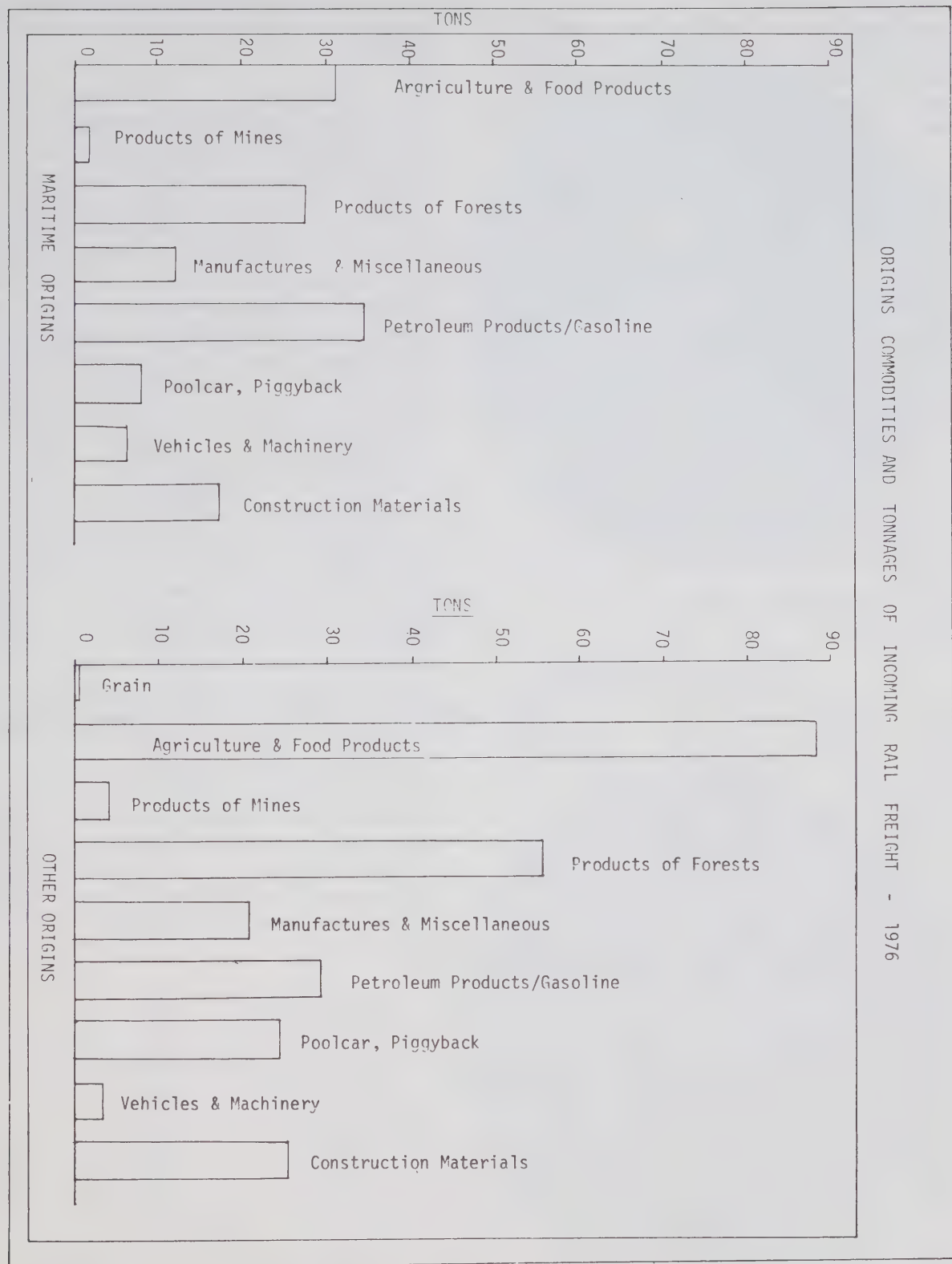


Figure 4-10

ORIGINS OF RAIL FREIGHT INCOMING TO NEWFOUNDLAND BY PERCENTAGE



Figure 4-11



and construction materials. Of these, petroleum and forest products loom largest. Agriculture/food products at 30,900 tons were imported from Maritime origins in volumes comparable to those of petroleum and forest products.

Grain was imported from non-Maritime origins but at 200 tons, the amount was insignificant. The major imports from non-Maritime origins were agriculture/food products at 88,600 tons and forest products at 55,800 tons (see Figure 4-11). Generally, 65% of rail freight was of non-Maritime origin, the major commodities being agriculture/food and forest products. The most important items from the Maritimes were petroleum and forest produce.

The major destinations of incoming rail freight were zone 1 (St. John's), zone 8 (Corner Brook), zones 11 and 12 (Grand Falls) and zone 2 (Conception Bay). Together these zones account for 80% of all incoming rail freight and individually for 44.4%, 13%, 10.9% and 10.8% in respective order. The remaining 20% was distributed between Gander, Port aux Basques, Stephenville, Clarendville, Gambo and other minor destinations (see Figure 4-12).

In terms of commodity volumes, for each of these four zones, agriculture and food products appear as the largest rail import commodity in each zone. Forest products rank second in all but zones 11/12 where it

is displaced by fuels and chemicals. The remaining breakdowns by commodity type are detailed in Table 4-4.

St. John's utilized rail to a greater degree than did the other major zones because of its larger population and role as a point of distribution for other areas on the Island.

2. Intra-Rail Freight

There were approximately 395,704 tons of freight transported within the Province by rail in 1976, the majority of which originated in three major zones—13, 8 and 10. These three zones accounted for roughly 69% of all rail freight moved between intra zones. Figure 4-13, graphically illustrates the major zones of origin. Gander, Corner Brook and Millertown Jct. respectively are the centres for the more important zones and Grand Falls the centre for the fourth-ranked zones 11 and 12, which originated only 10% of total rail freight. The remaining 21% originated mainly in zones 15, 6, 7 and 1 with less than 10% coming from other zones.

About 51% of intra freight was shipped to zone 8 (Corner Brook) with 19% going to zones 11 and 12 (Grand Falls) and 15% going to zone 7 (Stephenville) for a total of 85%. The distribution of the remaining 15% is detailed in Figure 4-14. In 1976, 191,584 tons of rail freight entered Corner Brook, far in excess of tonnages entering other zones. This is in comparison to 72,270 tons entering zones 11 and 12, 57,715 entering zone 7 and 27,418 entering zone 1.

Of the 191,000 tons of freight going into Corner Brook, 187,587 tons are composed of forest products, 134,197 tons of which came from zone 13 (Gander). Two other zones, Grand Falls (24,750 tons) and Port aux Basques (16,785 tons) contributed significantly to this large tonnage. The remaining tonnages of rail freight were obviously very small totalling 3937 tons, of which 3736 tons were agriculture and food products from St. John's. Table 4-5 details the intra-rail commodity breakdowns.

Table 4-4 Rail Commodity Breakdown by Major Destination—1976

| COMMODITY CLASSIFICATION | TRAFFIC ZONE DESTINATION | | | |
|----------------------------------|--------------------------|--------|--------|--------|
| | 1 | 2 | 8 | 11/12 |
| Forest Products | 40,175 | 10,031 | 8,906 | 5,596 |
| 20 Ores, Minerals, Metals | 2,102 | 246 | 365 | 1,946 |
| 30 Vehicles & Machinery | 2,611 | 100 | 2,589 | 1,867 |
| 31 Mfg. Products & Miscellaneous | 18,347 | 788 | 3,592 | 6,797 |
| 40 Construction Basic Materials | 12,741 | 5,305 | 5,083 | 3,802 |
| 50 Fuels & Chemicals | 17,876 | 9,690 | 7,609 | 7,533 |
| 60 Agriculture & Food Products | 53,955 | 15,516 | 17,698 | 10,869 |
| 65 Grain | 145 | 45 | — | — |
| 70 Poolcar, Piggyback & Misc. | 21,723 | 401 | 4,221 | 3,198 |

Table 4-5 Zonal Destinations of Intra-Rail Freight—1976

| COMMODITY | 1 | 2 | 3 | 6 | 7 | 8 | 9 | 10 | 11/12 | 13 | 14 | 15 |
|---------------------------|--------|-------|-----|-------|--------|---------|-----|-----|--------|-------|-------|-------|
| Forest Products | 161 | 146 | 129 | 1,015 | 56,241 | 187,587 | 32 | — | 72 | 360 | — | 601 |
| Ores, Minerals, Metals | 38 | 40 | 9 | — | 115 | — | 6 | 192 | 66,033 | 12 | — | — |
| Vehicles & Machinery | — | — | — | 44 | — | 24 | — | — | 93 | 23 | — | — |
| Mfg. Products & Misc. | 1,732 | 20 | 32 | 168 | 2 | 196 | — | — | 303 | 7 | 42 | 42 |
| Const. Basic Materials | 25,179 | 9,512 | 170 | 4,115 | 1,010 | 41 | — | 100 | 1,327 | 1,992 | 1,274 | 2,337 |
| Fuels & Chemicals | 83 | 20 | — | 1,824 | 15 | — | — | — | 8,902 | 7,273 | 32 | 5 |
| Agriculture & Food Pdts. | 205 | 12 | 82 | 614 | 332 | 3,736 | 210 | 20 | 540 | 15 | — | — |
| Grain | — | — | — | — | — | — | — | — | — | — | — | — |
| Poolcar, Piggybk. & Misc. | 20 | 8 | 81 | — | — | — | — | — | 21 | 21 | 21 | 19 |
| TOTAL | 27,418 | 9,758 | 503 | 7,780 | 57,715 | 191,584 | 248 | 312 | 77,291 | 9,703 | 1,369 | 3,004 |

Figure 4-12

DESTINATION OF INBOUND RAIL FREIGHT TO NEWFOUNDLAND BY PERCENTAGE 1976

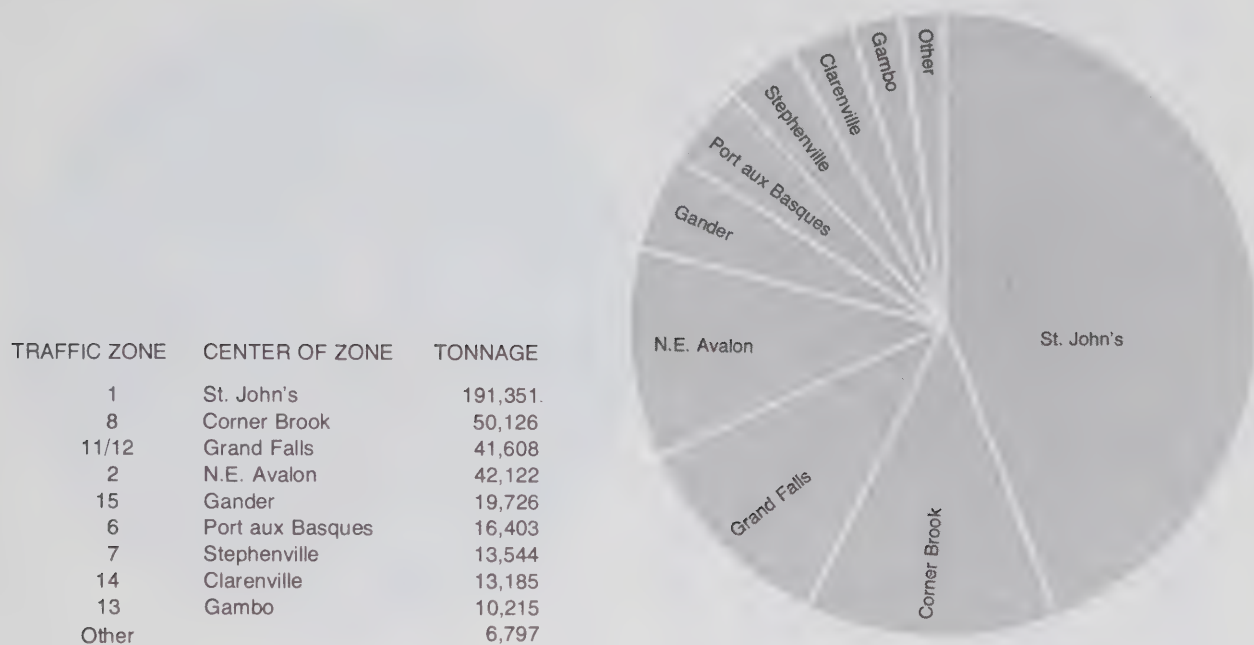


Figure 4-13

MAJOR ORIGINS OF INTRA-RAIL FREIGHT

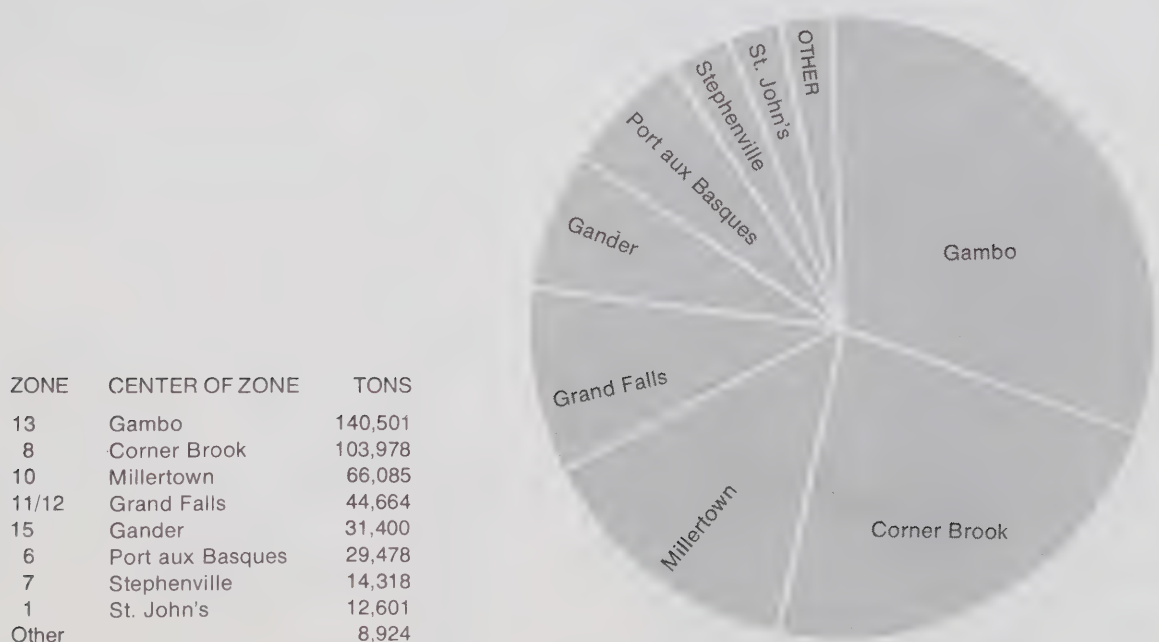
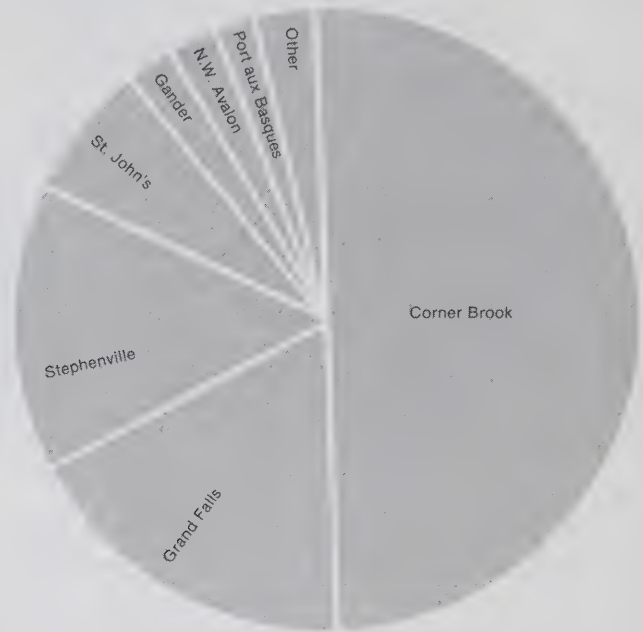


FIGURE 4-14

DESTINATION OF INTRA-RAIL FREIGHT IN NEWFOUNDLAND BY PERCENTAGE

| TRAFFIC ZONE | CENTER OF ZONE | TONNAGE |
|--------------|------------------|---------|
| 1 | St. John's | 27,418 |
| 2 | N.W. Avalon | 9,758 |
| 6 | Port aux Basques | 7,841 |
| 7 | Stephenville | 57,715 |
| 8 | Corner Brook | 191,584 |
| 11/12 | Grand Falls | 72,270 |
| 13 | Gander | 10,223 |



3. Outbound Rail Freight

The outbound rail tonnages in 1976 amounted to 71,832 tons in comparison to the larger volumes brought into and transported within the Island. There was only one significantly large export of rail freight from zone 8 (Corner Brook) consisting of 37,757 tons of forest products shipped to the United States. Outbound rail shipments from other traffic zones were relatively low, usually under 5000 tons, although zone 1 and zone 7 exceed this amount. From zone 7 (Stephenville) there were 1892 tons of forest products shipped to zone 23B (Quebec, excluding Montreal) and 1916 tons of the same sent to Ontario. From zone 1 (St. John's), the major rail export commodity was agriculture and food products, 1597 tons of which was transported to zone 23B. Other than this, there were no significant quantities of rail freight exported from Newfoundland in 1976. The percentage origins are detailed in Figure 4-15 but destination and commodity breakdowns have been omitted for outbound rail freight due to the relatively low volumes.

Mode Utilization: Air Passengers—1976

In 1976 there was a total of 629,968 passengers carried by Newfoundland-associated airlines.

1. Intra

In 1976 there were 152,647 passengers carried between points within the Island of Newfoundland. This figure represents 24% of all air traffic associated

with the Province. Table 4-6 details the major intra-provincial air transfers which account for the origins of 91.9% of passengers and 93.1% of destinations. Of the origins, zone 1. (St. John's), was the most important with 34% of the traffic; followed by zone 13 (Gander), with 17.8%; zone 9 (Deer Lake), with 15.8%; zone 18 (Goose Bay), with 12.9%; and zone 19 (Wabush), with 11.7%. There were 16,320 passengers from zone 1 disembarked in Deer Lake and 17,480 in Gander.

The major destinations ranked the same as the origins and as can be seen from Table 4-6, the percentages were very similar. The passengers landing at St. John's came mainly from Deer Lake and Gander.

2. Incoming

Fully 232,561 passengers or 37% of the total Newfoundland-associated air passengers came from extra-provincial origins in 1976. The three major origins were Ontario, Nova Scotia (excluding North Sydney), and Montreal. Together these accounted for 74.1% of incoming traffic. The incoming traffic is detailed in Table 4-7. The major destinations of passengers were St. John's, Gander and Wabush.

In percentage terms, St. John's received 55.9%, Wabush, 16.3% and Gander, 10.7%.

3. Outbound

In 1976, outbound passenger traffic comprised the largest portion of Newfoundland air travel with some

Table 4-6 Origin-Destination of Intra-Provincial Air Passengers—1976

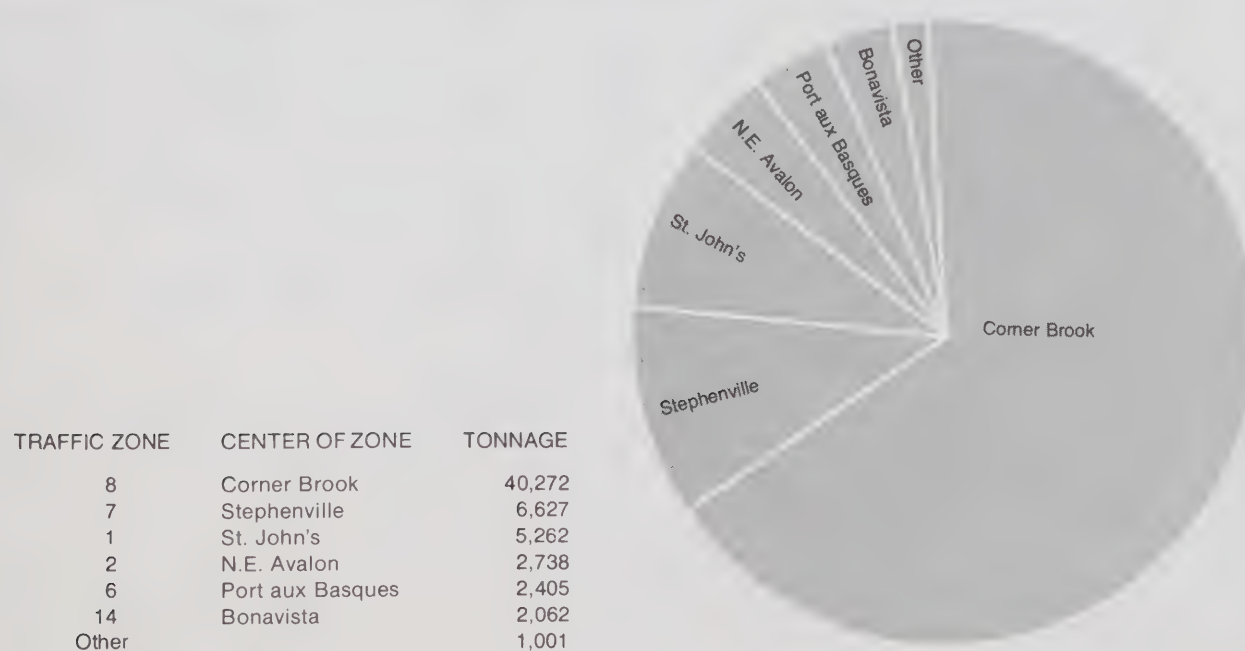
Zones

| O/D | 1 | 5 | 7 | 9 | 13 | 15 | 17 | 18 | 19 | TOTAL |
|-------|--------|----|-------|--------|--------|-----|-------|--------|--------|---------|
| 1 | — | — | 5,500 | 16,320 | 17,480 | — | 40 | 5,430 | 7,460 | 52,230 |
| 5 | — | 16 | — | — | 86 | — | — | — | — | 102 |
| 7 | 5,920 | — | — | — | 640 | — | — | 740 | 930 | 8,230 |
| 9 | 17,430 | — | — | — | 900 | — | 240 | 2,069 | 3,530 | 24,169 |
| 13 | 17,320 | 64 | 540 | 830 | 278 | 523 | 558 | 2,958 | 4,250 | 27,321 |
| 15 | — | — | — | — | 528 | — | — | — | — | 528 |
| 17 | 40 | — | — | 230 | 540 | — | — | 1,453 | 10 | 2,273 |
| 18 | 5,480 | — | 620 | 2,244 | 2,553 | — | 1,509 | 5,578 | 1,820 | 19,804 |
| 19 | 7,410 | — | 680 | 3,580 | 4,110 | — | 30 | 1,980 | 200 | 17,990 |
| TOTAL | 53,600 | 80 | 7,340 | 23,204 | 27,115 | 523 | 2,377 | 20,208 | 18,200 | 152,647 |
| % | 35.1 | | | 15.2 | 17.7 | | | 13.2 | 11.9 | 91.9 |
| | | | | | | | | | | 93.1 |

Table 4-7 Origin-Destination of Incoming Air Passengers—1976

| O/D | 1 | 5 | 7 | 9 | 13 | 15 | 17 | 18 | 19 | TOTAL |
|-------|---------|---|--------|--------|--------|----|----|-------|--------|---------|
| 20A | 3,600 | — | 580 | 1,490 | 820 | — | — | 90 | 150 | 6,730 |
| 20B | 36,720 | — | 3,880 | 5,210 | 6,110 | — | — | 1,010 | 400 | 53,340 |
| 21 | 9,410 | — | 1,010 | 1,150 | 1,970 | — | — | 480 | 210 | 14,230 |
| 22 | 1,840 | — | 80 | 380 | 500 | — | — | 60 | 10 | 2,870 |
| 23A | 20,850 | — | 3,530 | 2,400 | 3,860 | — | — | 4,640 | 12,630 | 47,910 |
| 23B | 1,220 | — | 100 | 80 | 240 | — | — | 110 | 22,840 | 24,590 |
| 24 | 48,730 | — | 7,820 | 1,900 | 10,140 | — | — | 980 | 1,590 | 71,170 |
| 25 | 7,860 | — | 990 | 490 | 1,310 | — | — | 910 | 160 | 11,721 |
| TOTAL | 130,230 | — | 17,990 | 13,100 | 24,950 | — | 21 | 8,280 | 37,990 | 232,561 |

FIGURE 4-15

MAJOR ORIGINS OF OUT-BOUND RAIL FREIGHT 1976

244,760 individuals, or 39% of the total. The three main origins of outgoing passengers were St. John's, Wabush and Gander, which boarded 137,660, 36,500 and 28,340 people respectively.

Ontario received 51,320 of the St. John's passengers, while 27,960 were destined for Nova Scotia, excluding North Sydney. Another 22,240 were off-loaded at Montreal. Most of the passengers coming from Wabush went to Quebec, more specifically, 21,020 went to Quebec (excluding Montreal) and 12,660 went to Montreal. Ontario received 12,000 passengers from Gander.

The major destinations of outbound travellers were Ontario, Nova Scotia and Montreal, which received 77,770, 56,030 and 48,960 persons respectively. Fully 51,320 of the Ontario-bound passengers originated their flights in St. John's as did 37,960 passengers destined for Nova Scotia. Details of outbound traffic are given in Table 4-8.

In summary, it is apparent that the majority of air passengers comes from and goes to St. John's, while the largest transfers in Labrador were between Wabush and Montreal. Outbound and inbound passengers comprise 76% of all air traffic. The major intra-transfers were between St. John's, Gander and Deer Lake.

Mode Utilization: Air Freight—1976

A total of 10,702.5 tons of freight was transported by air in Newfoundland in 1976, 79% of which was incoming, 10.9% outbound and 9.9% intra-provincial.

1. Intra

In 1976, 1063.8 tons of freight were moved within the Province, most of which (548 tons) was carried from St. John's. Zones 18 (Goose Bay) and 19 (Wabush-Churchill Falls) were the sources of 119.1 and 119.2 tons respectively. Table 4-9 indicates that 268.4 tons went from St. John's to Wabush-Churchill Falls, while 43 tons went from Goose Bay to St. John's and 45.8 tons were flown between Wabush-Churchill Falls.

In terms of destination, zones 18 (Goose Bay) and 19 (Wabush-Churchill Falls) were the largest, receiving 428.2 tons and 259.1 tons each, for a total of 64.6%. Fully 263.4 tons of freight went from St. John's to Goose Bay and another 111.6 tons went to zone 19.

2. Outbound

In 1976, 1176.7 tons of freight were flown out of the Province. The major zone of origin was zone 1 (St. John's), which exported 823.1 tons of freight, while Goose Bay originated 123.8 tons for a total of 80.4%. Montreal received 208.6 tons from St. John's, the remainder being distributed over a number of destinations as Table 4-10 indicates.

From Goose Bay, 58.6 tons of air freight went to Montreal, while another 52.3 tons went to New Brunswick. Only 65.3 tons went from Stephenville to Montreal.

Table 4-8 Origin-Destination of Outbound Air Passengers—1976

| O/D | 20A | 20B | 21 | 22 | 23A | 23B | 24 | 25 | 26 | 27 | TOTAL |
|-------|-------|--------|--------|-------|--------|--------|--------|--------|----|----|---------|
| 1 | 3,280 | 37,960 | 10,190 | 1,450 | 22,240 | 1,900 | 51,320 | 9,350 | — | — | 137,660 |
| 5 | — | — | — | — | — | — | — | — | — | — | — |
| 7 | 580 | 4,070 | 1,120 | 50 | 3,340 | 110 | 8,600 | 1,240 | — | — | 19,200 |
| 9 | 1,510 | 5,700 | 1,190 | 300 | 2,310 | 110 | 2,730 | 710 | — | — | 14,560 |
| 13 | 760 | 6,810 | 2,260 | 440 | 3,900 | 250 | 12,000 | 1,910 | — | 10 | 28,340 |
| 15 | — | — | — | — | — | — | — | — | — | — | — |
| 17 | — | 10 | — | — | — | — | — | — | — | — | 10 |
| 18 | 270 | 1,010 | 830 | 110 | 4,420 | 90 | 1,370 | 400 | — | — | 8,500 |
| 19 | 90 | 470 | 240 | 10 | 12,660 | 21,020 | 1,750 | 260 | — | — | 36,500 |
| TOTAL | 6,460 | 56,030 | 15,830 | 2,360 | 48,960 | 23,480 | 77,770 | 13,890 | — | — | 248,760 |

Table 4-9 Origin-Destination of Intra-Provincial Air Freight—1976

| O/D | 1 | 7 | 9 | 13 | 17 | 18 | 19 | TOTAL |
|-------|-------|------|------|-------|----|-------|-------|--------|
| 1 | — | 27.7 | 56.6 | 88.6 | .1 | 263.4 | 111.6 | 548.0 |
| 7 | 7.1 | — | — | .8 | — | 9.5 | 12.2 | 29.6 |
| 9 | 18.5 | — | — | 3.6 | .1 | 41.0 | 39.3 | 102.5 |
| 13 | 25.6 | .9 | 7.3 | — | .3 | 33.1 | 17.4 | 84.6 |
| 17 | — | — | .2 | .2 | — | 60.4 | — | 60.8 |
| 18 | 43.0 | — | 20.9 | 22.4 | — | — | 32.8 | 119.1 |
| 19 | 24.0 | 3.0 | 11.8 | 13.8 | — | 20.8 | 45.8 | 119.2 |
| TOTAL | 118.2 | 31.6 | 96.8 | 129.4 | .5 | 428.2 | 259.1 | 1064.8 |

Montreal was the largest destination, with 371.2 tons incoming, 208.6 tons of which came from St. John's. Ontario received 331.5 tons of freight from Newfoundland, 281 tons which came from St. John's.

3. Incoming

A total of 8462 tons of freight was shipped into the Province in 1976, 83% of which came from three major sources as detailed in Table 4-11. These zones, 21 (New Brunswick), 23A (Montreal), and 24 (Ontario), each shipped over 2000 tons of freight to Newfoundland. Zone 1 received 4340.5 tons or 51.2% of total incoming freight, 1751.6 tons from Montreal and 1593.7 tons from Ontario. Zone 18 (Goose Bay) received 2077 tons of which 1669.3 tons came from New Brunswick. Together, zones 1 and 18 accounted for 75.8% of incoming freight.

Mode Utilization: Trucking Industry—1976

Although statistics regarding the volumes of freight moving into and out of the Province by truck are relatively easy to obtain, due to the fact that such are compiled by both CN Marine as part of the Gulf Ferry report and the Provincial Department of Transportation at its weight scales at Cape Ray. Other data pertaining to origin and destination points as well as cargo composition are virtually impossible to obtain, except through a major survey, as the trucking indus-

try is exceptionally lax in the statistics it records and maintains.

The Commission first thought that a major roadside interview program carried out in 1976, jointly by the Atlantic Provinces' Departments of Transportation, would be the first start of a significant data bank on the trucking industry. However, a close examination of this data revealed it to be inadequate for the Commission's purposes.

After some examination of weight scale records, as well as data from a number of other sources, the Commission was able to establish a statistical profile of the industry. This showed that although there has been an exceptionally high rate of growth in recent years for the interprovincial freight, and that in 1976 280,000 tons of cargo were moved to the Province from mainland Canada and United States origins, this volume was relatively insignificant compared with the 7.8 million tons moved on an intra basis. Other statistics pertaining to intra movements, although not included in this report, are to be submitted as supporting documents at a later date.

Mode Utilization: Bus—1976

In 1976, the CN Roadcruiser Service recorded a total of 193,183 passengers utilizing the intra-provincial bus system. As is to be expected, the bulk of the passengers came from five major zones which are

Table 4-10 Origin-Destination of Outbound Air Freight—1976

| O/D | 20A | 20B | 21 | 22 | 23A | 23B | 24 | 25 | 26 | 27 | TOTAL |
|-------|------|-------|-------|-----|-------|-----|-------|------|------|------|--------|
| 1 | 8.0 | 90.3 | 49.3 | 1.6 | 208.6 | 4.1 | 281.0 | 57.6 | 80.8 | 41.8 | 823.1 |
| 7 | .1 | 3.0 | 16.5 | — | 65.3 | .3 | 20.8 | 4.7 | 3.9 | 1.6 | 116.2 |
| 9 | .6 | 6.0 | 3.2 | .4 | 10.1 | — | — | — | — | — | 22.3 |
| 13 | .9 | 4.2 | 7.9 | .1 | 28.6 | 1.2 | 29.7 | 6.5 | 5.2 | 4.9 | 89.2 |
| 17 | — | — | — | — | — | — | — | — | — | — | — |
| 18 | 1.2 | 11.2 | 52.3 | .4 | 58.6 | .1 | — | — | — | — | 123.8 |
| 19 | 1.3 | .3 | .1 | .4 | — | — | — | — | — | — | 2.1 |
| TOTAL | 14.1 | 115.0 | 120.3 | 2.9 | 371.2 | 5.7 | 331.5 | 68.8 | 89.9 | 48.3 | 1176.7 |

Table 4-11 Origin-Destination of Incoming Air Freight—1976

| O/D | 1 | 7 | 9 | 13 | 17 | 18 | 19 | TOTAL |
|-------|--------|-------|------|-------|----|--------|-------|--------|
| 20A | 9.8 | .9 | 12.0 | .9 | — | .3 | — | 23.9 |
| 20B | 337.7 | 47.7 | 28.6 | 45.3 | — | 195.6 | 4.4 | 659.3 |
| 21 | 288.5 | 96.4 | 23.8 | 102.6 | .1 | 1669.3 | 12.7 | 2193.4 |
| 22 | 3.5 | .4 | .9 | .8 | — | .2 | .3 | 6.1 |
| 23A | 1751.6 | 259.2 | 20.1 | 249.4 | — | 211.5 | 322.2 | 2814.0 |
| 23B | 27.1 | 8.2 | — | 2.0 | — | .1 | 183.0 | 220.4 |
| 24 | 1593.7 | 262.7 | — | 227.0 | — | — | — | 2083.4 |
| 25 | 99.2 | 18.3 | — | 22.0 | — | — | — | 139.5 |
| 26 | 145.3 | 39.9 | — | 32.1 | — | — | — | 217.3 |
| 27 | 84.1 | 7.6 | — | 13.7 | — | — | — | 105.4 |
| TOTAL | 4340.5 | 741.3 | 85.1 | 695.0 | .1 | 2077.0 | 522.6 | 8462.0 |

detailed in Figure 4-12. These major zones are: 1 (St. John's), 11 and 12 (Grand Falls), 8 (Corner Brook), 13 (Gambo/Gander) and 6 (Port aux Basques). These five zones accounted for 72% of the total, while zone 1 was the origin for 39,074 or 20%. The remaining 28% came from zones 7 (Stephenville), 14 (Bonavista), 2 (Whitbourne), 16 (Springdale) and 9 (Deer Lake).

Table 4-12 Road Cruiser Passengers

| 1973 | 1974 | 1975 | 1976 |
|---------|---------|---------|---------|
| 163,583 | 178,540 | 193,730 | 193,183 |

The majority of the travellers from zone 1 were destined for four main areas which are as follows: 9943 to zone 13, 8637 to zones 11 and 12 and 4003 to zone 2. The largest exodus of passengers from zones 11 and 12 consisted of some 9073 persons destined for zone 1. Zone 8 originated 26,103 passengers, 4091 of which went to zone 1, 3658 to zones 11 and 12 and 3589 to zone 7. Fully 23,436 passengers exited from zone 13 with major transfers of 8437 to zone 1, 3380 to zone 13 and 3034 to zones 11 and 12. The smallest major zone originated 20,905 passengers of which 7937 were destined for zone 8 and 4790 for zone 7.

The major destinations and volumes were as follows: zone 1, 38,255; zone 26, 691; zone 8, 23,948; and zone 6, 23,158. Together these zones accounted for 58% of the total passengers, while zone 13 received 12.7% and zone 7, 10%. The remaining 20% was distributed over the other four traffic zones. Figure 4-16 illustrates the zone to zone bus passenger transfers.

This diagram graphically illustrates the major bus passenger flows between zones and we can discern a strong preference for Central-to-Avalon routes and Corner Brook-to-Port aux Basques travel. Although it must be noted that in both instances, the flows are two way.

There are, of course, many other origin destination pairs involved, but the areas mentioned above contribute the highest individual totals.

In terms of trip length, Figure 4-17 indicates that roughly 90% of all trips were under 350 miles in length and 50% were under 150 miles. The cumulative frequency curve for November compares favourably with the July 30-August 19, 1976 curve, leading to the conclusion that trip length structures are comparable year round and vary mainly in magnitude. Figure 4-18 reinforces this statement and further emphasizes that the 101-150 mile trip length was the most heavily used although the 0-50, 51-100 and 201-250 trip lengths were heavily trafficked. Above 301-350 miles the frequency of trips was very low indeed.

Figure 4-19 is a monthly record of the 1976 bus passenger totals. It is apparent that there are two significant peaks in bus traffic, the smaller around March and April, in the vicinity of 19,927 persons and the larger in July and August totalling roughly 22,126 individuals. It should be cautioned that these figures do not include holders of CN passes. After August there was a gradual drop off until an upswing occurred in January when some 16,378 passengers used the service.

In the summary, it is apparent that the heaviest usage of the Roadcruiser service was on trips of less than 350 miles and that they were concentrated mainly in the routes running to and from the east and west coasts to Central Newfoundland. The peak periods of travel were in July/August, March/April and to a lesser degree, January. Historically, usage of the bus facility has increased since 1973, as Table 4-12 indicates, although there was a trend towards stability in 1976.

Mode Utilization: Gulf Ferry Service

1. Passenger Traffic

Passenger traffic crossing the Cabot Strait can be broken down into two categories, incoming to Newfoundland and outgoing. Between 1973 and 1975 passenger traffic demonstrated steady increases with a small drop in 1976. The outgoing figures followed the same trends with 140,930 passengers in 1976 compared to 121,149 in 1973 as detailed in Table 4-13.

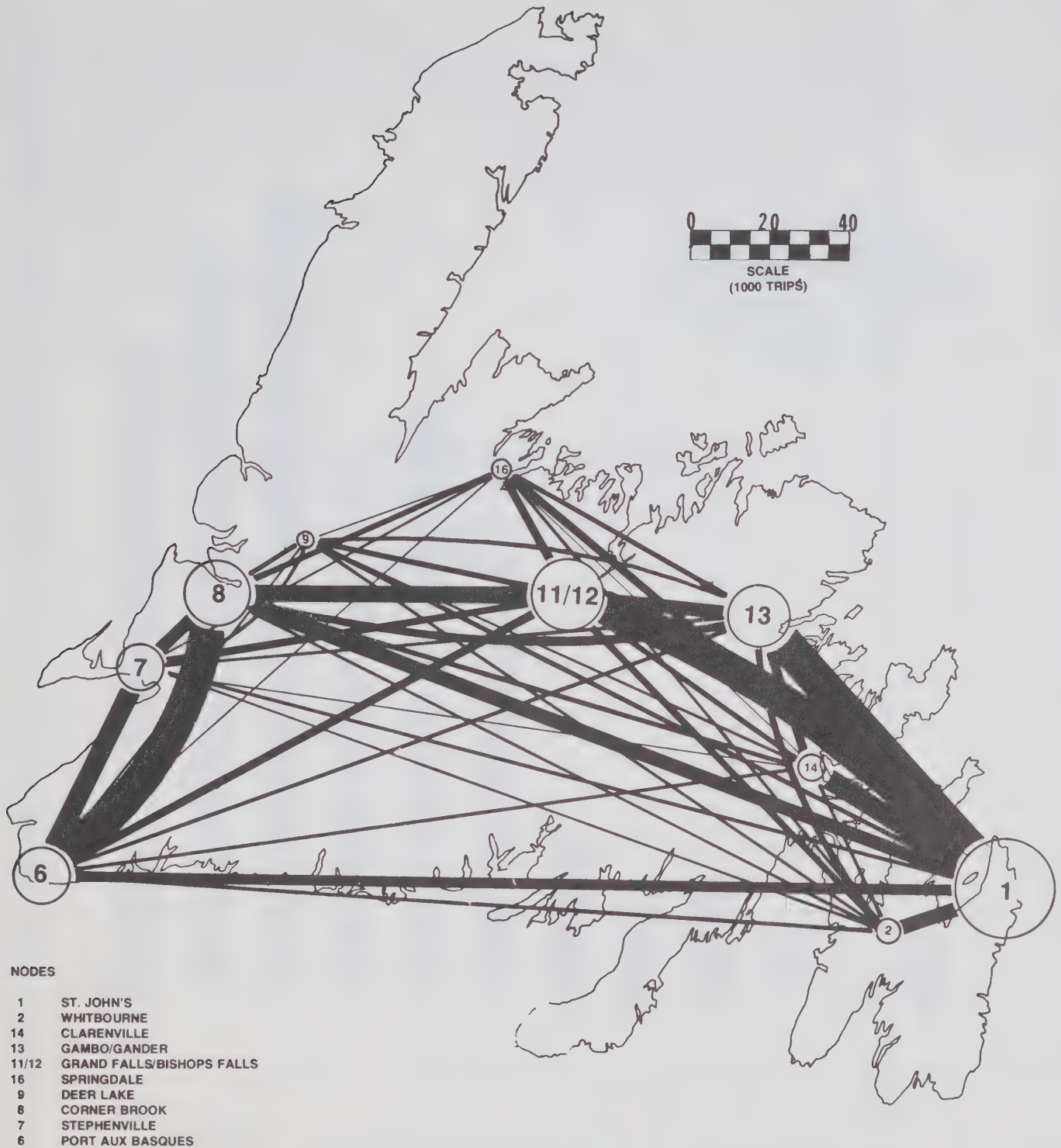
Table 4-13 Gulf Passenger Traffic

| Year | Port Aux Basques to North Sydney | North Sydney to Port Aux Basques | Total |
|------|----------------------------------|----------------------------------|---------|
| 1973 | 121,149 | 127,578 | 248,727 |
| 1974 | 133,081 | 144,614 | 277,695 |
| 1975 | 141,704 | 152,994 | 294,698 |
| 1976 | 140,930 | 148,981 | 289,913 |

The Argentina ferry service runs for only five months from June to October and handled roughly 13% of the total 1976 passenger traffic. The overall total on the Argentina service was 41,769 of which 21,230 were outgoing from the Province, the reverse of the Port aux Basques situation which saw more incoming traffic. It should be noted that the figures for single direction crossings in 1976 from Argentina were for three months only (see Table 4-14).

Figure 4-16

1976 CN BUS PASSENGER TRIPS IN NFLD.



SOURCE: CN — ST. JOHN'S

Figure 4-17

CUMULATIVE FREQUENCY CURVE

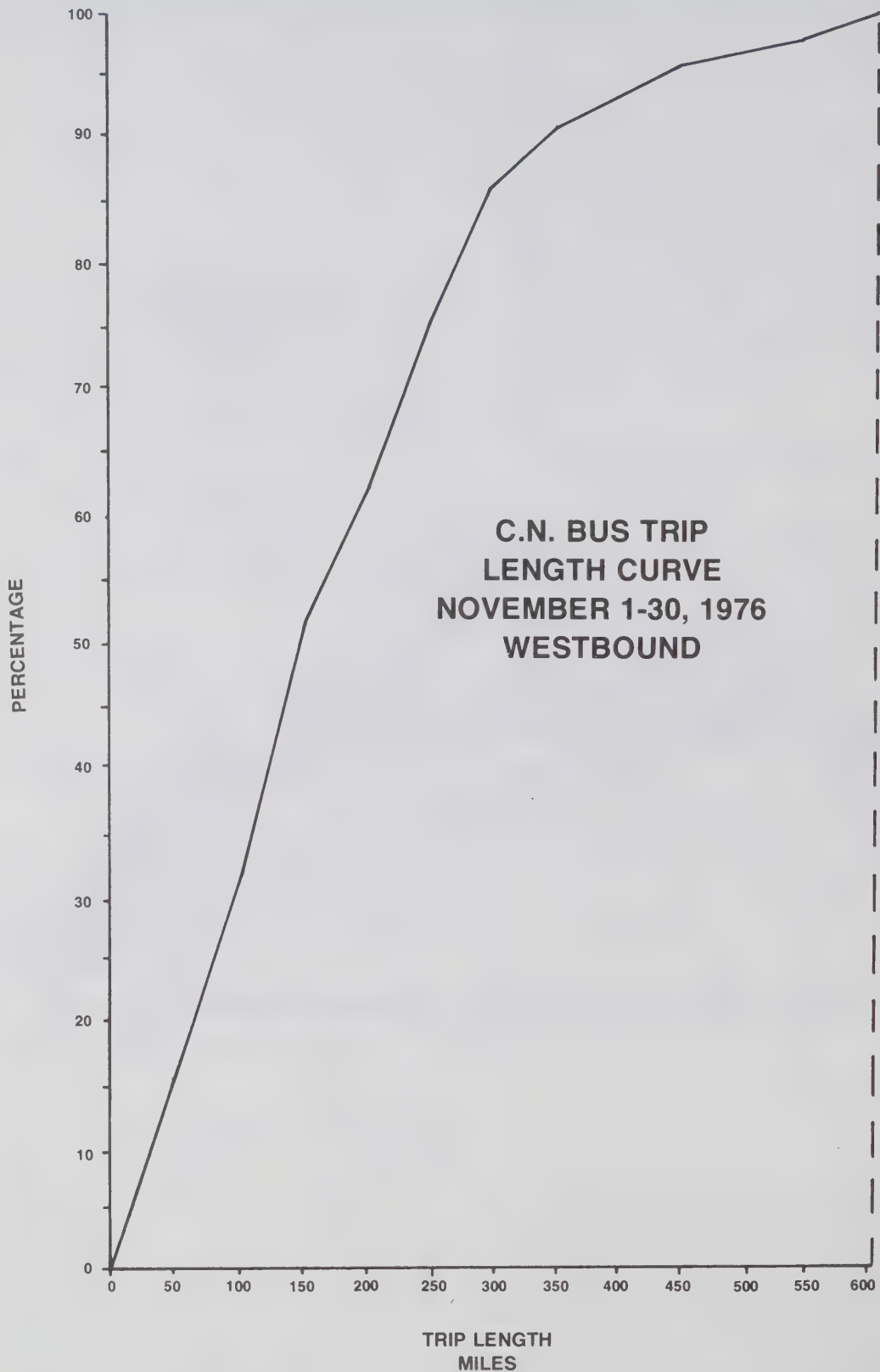


Figure 4-18

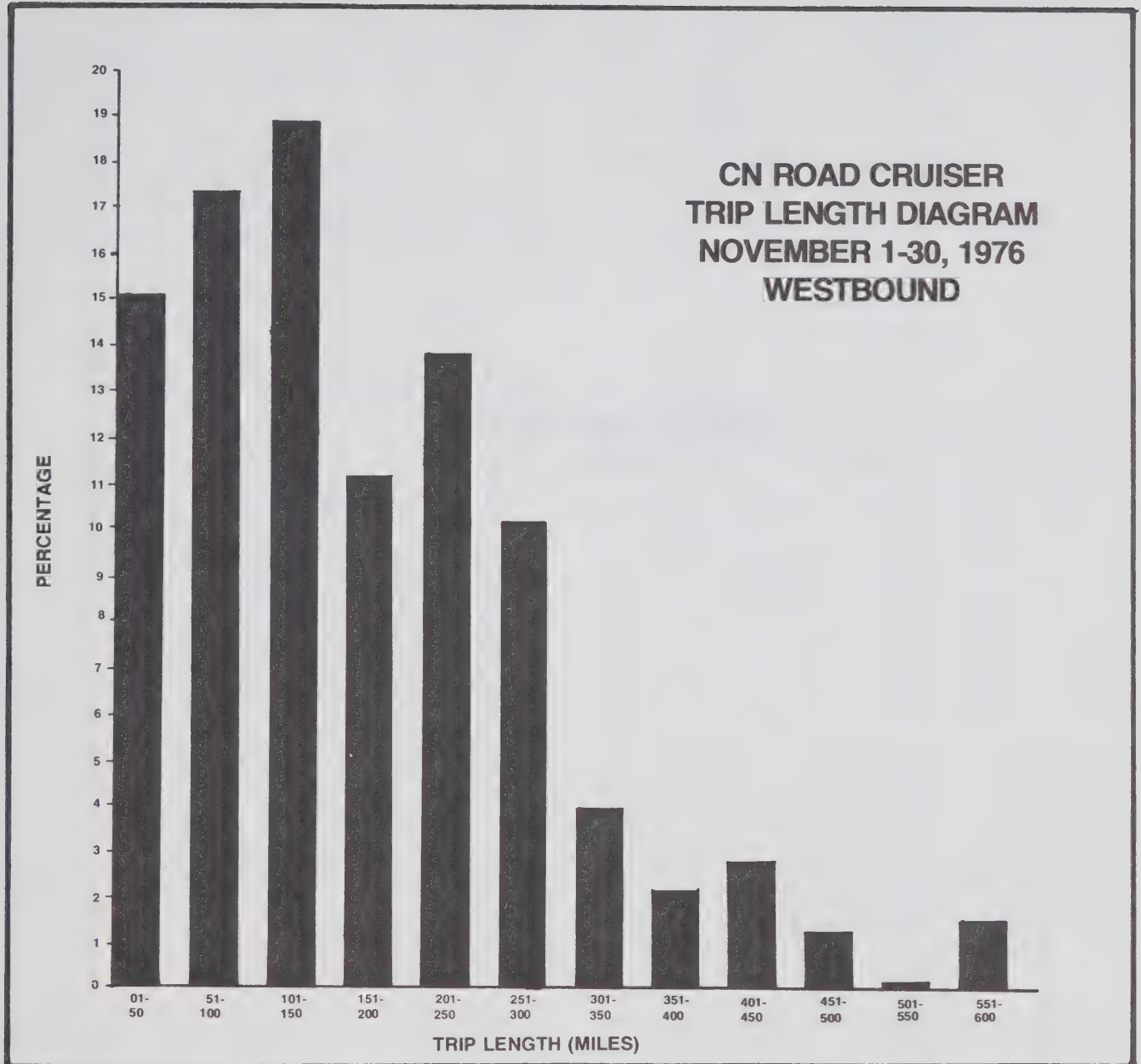


Figure 4-19

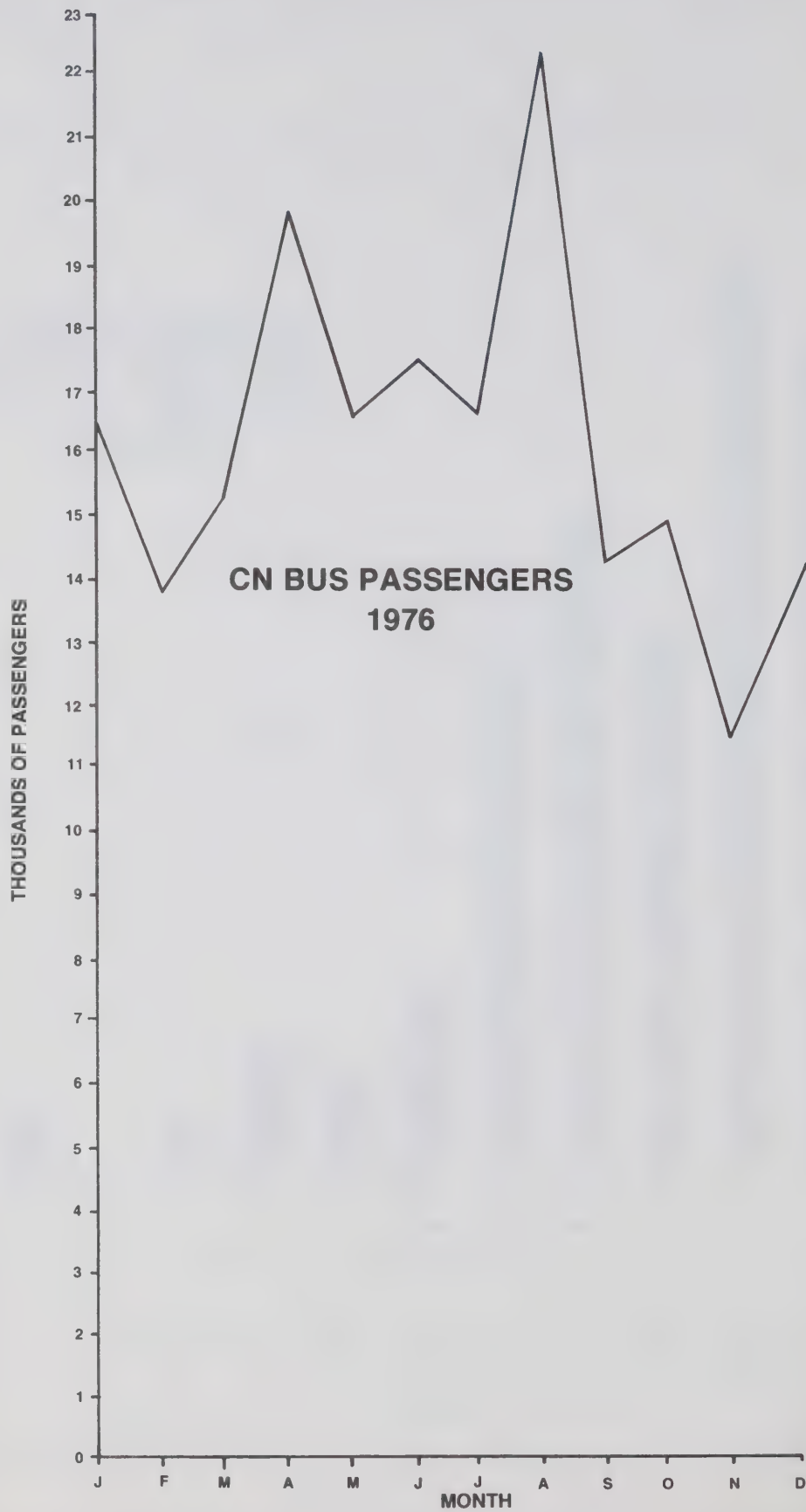


Table 4-14 Argentia Passenger Traffic

| Year | Argentia to North Sydney | North Sydney to Argentia | Total |
|------|--------------------------|--------------------------|--------|
| 1973 | 12,404 | 10,462 | 22,866 |
| 1974 | 17,009 | 13,024 | 30,033 |
| 1975 | 26,088 | 20,811 | 46,899 |
| 1976 | 20,230 | 16,310 | 41,769 |

In terms of overall trends there was a peak in 1975 and the 1976 figures indicate a slight decline of about 5000 passengers. Argentia's share of total passenger traffic has increased steadily from 8.4% in 1973 to 14% in 1976.

2. Passenger Related Vehicles (PRV's)

Table 4-15 indicates that PRV traffic on the west coast ferry service increased steadily until 1975. In 1976 a slight decline occurred, consistent with trends in traffic as a whole.

Table 4-15 Passenger Related Vehicles (Port Aux Basques)

| Year | Port Aux Basques to North Sydney | North Sydney to Port Aux Basques | Total |
|------|----------------------------------|----------------------------------|--------|
| 1973 | 31,469 | 34,408 | 65,877 |
| 1974 | 35,350 | 39,477 | 74,827 |
| 1975 | 36,780 | 41,002 | 77,782 |
| 1976 | 35,178 | 38,359 | 73,537 |

There were slightly more PRV's incoming to the Island than were leaving. The Argentia figures in Table 4-16 indicate growth in traffic on that service, at least until 1976. The 1976 figures are for 3 months only with the exception of the total for that year and historically there were more PRV's leaving Argentia than entering.

Table 4-16 Passenger Related Vehicles (Argentia)

| Year | Argentia to North Sydney | North Sydney to Argentia | Total |
|------|--------------------------|--------------------------|--------|
| 1973 | 3,298 | 2,998 | 6,296 |
| 1974 | 4,353 | 3,372 | 7,725 |
| 1975 | 6,320 | 5,142 | 11,462 |
| 1976 | 4,955 (3 mos. only) | 3,985 (3 mos. only) | 13,839 |

3. Rail Freight

In 1976 the west coast ferry service handled roughly 392,214 tons of rail freight from the mainland as illustrated by Table 4-17.

This figure represented a reduction in tonnage from 1973. The outgoing tonnages also decreased from 72,504 tons in 1973 to 62,880 tons in 1976. The total figures exhibit the same trend of decline although

Table 4-17 Rail Freight

| Year | North Sydney to Port Aux Basques | Port Aux Basques to North Sydney | Total |
|------|----------------------------------|----------------------------------|---------|
| 1973 | 409,115 | 72,504 | 481,619 |
| 1974 | 472,431 | 92,904 | 565,335 |
| 1975 | 486,431 | 84,635 | 571,068 |
| 1976 | 392,211 | 62,880 | 455,094 |

there were some gains in 1974 and 1975. As the statistics indicate, there was considerably more rail freight imported than exported. The ferry service carried 15,027 rail cars in 1976 compared to 18,893 in 1975 as Table 4-18 indicates.

Table 4-18 Number of Rail Cars

| Year | Number Cars Carried |
|------|---------------------|
| 1973 | 15,902 |
| 1974 | 18,972 |
| 1975 | 18,893 |
| 1976 | 15,027 |

4. Trucking

The incoming and outgoing tonnage of truck freight entering the Province on the Gulf ferry service between 1973 and 1976 are illustrated in Table 4-19.

Table 4-19 Estimated Tonnage by Truck to and from Newfoundland

| Year | Tonnage from Nfld. | Tonnage to Nfld. | Total |
|------|--------------------|------------------|---------|
| 1973 | 49,464 | 122,295 | 171,759 |
| 1974 | 55,379 | 133,274 | 188,653 |
| 1975 | 96,590 | 201,000 | 297,590 |
| 1976 | 136,028 | 238,340 | 374,369 |

The trend towards increase is very pronounced in both incoming and outgoing tonnages and the general upswing is evident in the totals. The numbers and types of trucks carried on the ferry service are detailed in Table 4-20 which indicates that although the overall truck traffic is growing, it is a result of a sharp rise in the usage of semi-trailers on the Province's highways.

Table 4-20

| Year | No. of Straight Trucks | No. of Semi Trucks | Total |
|------|------------------------|--------------------|--------|
| 1973 | 2,941 | 6,049 | 8,990 |
| 1974 | 2,492 | 6,753 | 9,245 |
| 1975 | 2,883 | 10,635 | 13,518 |
| 1976 | 2,779 | 14,468 | 17,247 |

Chapter V

An Evaluation of the Newfoundland Transportation System

Introduction

Previous sections of this report have outlined in some detail the extent and type of transport services available in this Province and the degree to which each is being used at present. This section provides an evaluation of the transport system and draws conclusions as to its ability to meet the demands placed upon it.

The criteria used in assessing the various components can be divided into four general groups. These are:

- a) Comparison of physical facilities with accepted industry norms and/or standards of other provinces.
- b) Cost characteristics, including public support and fare structures.
- c) Service characteristics, including such items as travel time, comfort, safety, transit time, loss/damage and reliability.
- d) Social and economic impacts, such as the impact on industrial output, and the impact on the tourist industry, etc.

In subsequent paragraphs each mode of transport is discussed in light of some or all of the above. Finally, the total system as a unit is reviewed and the degree to which it is meeting the transport objectives of this Province is assessed.

An Assessment of CN Rail Operations

1. Adequacy of Fixed Plant

The ability of any railway operation to provide a high level of service and compete successfully with other modes and carriers for a share of the freight and passenger market is largely determined by the type and condition of the fixed plant over which the

service is operated. In the case of Newfoundland, it is well known that the fixed plant consists of a narrow gauge line (3'6" between rails) compared with the standard gauge (4'8½") on the mainland. Narrow gauge in itself, however, is not sufficient cause to bring about either a poor service or an economic failure, although it is a popular belief in this Province that replacement of our narrow gauge with one of a standard gauge would cure all the railway's ills. There are other factors associated with the physical plant beyond the gauge question which have serious adverse effects on the CN rail service in this Province. These are: 1) the geometric design characteristics, 2) load carrying abilities of the line and 3) interface problems at the Gulf.

The rail line as originally constructed in addition to being narrow gauge, was not built to very exacting standards of geometric design. Curves are generally sharper and without proper easement spirals and grades are generally steeper than on most North American rail lines. For comparison, Table 5-1 shows the geometric standards of two Maritime rail lines along with the Newfoundland line. As can be seen, the Newfoundland line has more frequent and more severe curves, steeper grades and has less load carrying ability than the other lines. These characteristics have a particular adverse effect on the operation of the railway and hence on the quality of service it can deliver to the customers. For instance, as a result of the excessive curvature, operating speeds are severely constrained. In Newfoundland there are 309 miles of track where speeds are restricted to 30 mph or less as compared with normal operating speeds of 50 mph found on most North American lines. The immediate impacts of these are, (a)

Table 5-1 Geometric Design Standards of Some Atlantic Area Railroads

| | Newfoundland | Intercolonial Railway (N.B.—N.S.) | Kensington Subdivision Representative on Lines of P.E.I. |
|--------------------|--|---|--|
| Gauge | Narrow | Standard | Standard |
| Track Gauge | 3'6" | 4'8½" | 4'8½" |
| Curves | 0°–15° Simple curves. No easement spirals. Over 1,700 curves on main line between St. John's & Port aux Basques. Distance 547 miles. 30% curved track or 213 miles. | 0°–7° Curves with spirals 98% of curves under 3°. 414 curves between Campbellton, N.B. and Halifax, N.S. A distance of 375 miles, i.e., 29% curved track or 109 miles. | 1°–0° to 9°–0°. 116 curves in a distance of 84 miles, or 19% of curved track. |
| Grades | Approximately 55% of main track has 1% to 3% grades. | 13% or 47.75 miles has 1% to 1.2%. Balance less than 1%. | 37% or 31.06 miles at 1% to 1.2%. Balance less than 1%. |
| Overhead Clearance | 22'6" | 22'6" | 22'6" 6'0" from gauge. |
| Side Clearance | 6' from gauge. | 6' from gauge. | |
| Car Capacity | 142,000 lbs. (allowable) | 263,000 lbs. | Varies from 142,000 lbs. to 220,000 lbs. |

increased travel time and hence user dissatisfaction, (b) high operational costs and hence higher user charges.

The poor geometric alignment acting in combination with the narrow gauge produces another detrimental effect not normally found elsewhere in Canada, in that it limits the range and type of equipment which may be used on the Newfoundland line. For instance, because of the danger of overturning on the sharp curves, most piggyback services, which are common on mainland lines, are not available in this Province.

The effect of the frequent and long sustained steep grades is to restrict the train size. Since greater locomotive effort is required to haul similar sized trains in Newfoundland as compared with the mainland, the number of cars and the total payload per train is somewhat less than that found in other provinces. Again, this is manifested in higher operating costs to the railway.

The adequacy of the fixed plant is further constrained by the low load carrying capabilities of the line, which is restricted to 142,000 lbs. compared with a minimum of 220,000 lbs. on most other mainland lines. This, of course, restricts the payload of each car. For instance, the average load per car on the mainland is in excess of 40 tons whereas in Newfoundland it is approximately 25 tons. Although there is some evidence to indicate that the Newfoundland consumer would not utilize the larger carload lots if these were available, i.e., the size of the business in Newfoundland is such that it is generally more suited to small shipments, there are some commodities which could certainly be shipped in larger amounts and hence lower costs to the operators, e.g., cement, pulpwood, steel, petroleum. The weight restrictions

on the Newfoundland line is limiting the competitiveness of CN for these commodities.

Finally, the attribute which has the most serious detrimental effect on the rail operation in Newfoundland, although connected with the fixed plant, is not confined to the line in Newfoundland. This is the interface problem associated with moving mainland cars across the Gulf and changing the trucks or transferring the freight so that they can be accommodated on the Newfoundland line.

The existence of the Gulf is a fact of life and although the process of truck to truck transfer has been streamlined and now has the capability to handle 80% of all incoming railcars, there will, because of reasons outside the control of CN, always be at least 20% which must go through the car to car transfer process. For instance, CP and US Rail companies will not permit their equipment to be processed through truck to truck. Even with the high ratio of truck to truck transfers, delays to the freight transport are an inherent part of the system. Under optimal conditions, it takes 15 minutes to process a car through truck to truck transfer. For a ferry load of 40 cars this means a ten hour delay under the most ideal conditions. Since it is not economical to run a train consisting of only 40 cars, a further delay must be encountered while waiting for a second ferry to unload and the necessary car transfer completed. Thus, because of the Gulf interface a 1 to 2 day delay is by its very nature built into the rail operation, and as such, adds to user dissatisfaction and reduces the railway's ability to compete with other modes which do not experience the same delay.

In spite of the built-in weakness of the railway, the Commission could find no evidence to substantiate the charge that the railway was deliberately down-

grading the plant with the view to eventual closure. On the contrary, there was evidence that the railway is being maintained in a reasonable manner and adequate for the traffic offering. Over the period 1950-1977 there have been substantial programs of replacement of the light 70 lb. rail with the heavier 85 or 100 lb. rail, as well as tie replacement, reballasting of track, and bridge improvement. An example of the expenditures for track and ties can be seen in Table 5-2.

Table 5-2 Capital Expenditures—Rail—Ties
1971-1976

| Year | Cost Rail | Cost Ties | Total |
|------|-----------|-----------|-----------|
| | (\$) | (\$) | (\$) |
| 1971 | 554,600 | 283,900 | 838,500 |
| 1972 | 679,400 | 427,300 | 1,106,700 |
| 1973 | 404,200 | 496,500 | 900,700 |
| 1974 | 890,000 | 622,500 | 1,512,500 |
| 1975 | 1,659,100 | 589,700 | 2,248,800 |
| 1976 | — | 724,000 | 724,000 |
| 1977 | 224,000 | 919,700 | 1,143,700 |

While there is no industry-wide set of standards which would allow a meaningful appraisal or comparison of rail lines or sections of lines, it is generally recognized that the track and ties should be maintained to at least a normalized condition. That is, the remaining life in these facilities should be 50% of its total useful life. To this end, CN has more than met its commitment as the yearly maintenance programs keeps the line above the normalized condition.

This, of course, does not give any indication as to the appropriateness of the physical plant in relation to the function to be performed. However, a rating system used by CN to rate all of its rail lines in Canada indicates that the line is adequate for the volume of traffic to be accommodated. It might be noted that this was also the opinion expressed by the authors of the Trans Newfoundland Corridor Transportation Study (1974).

While there is some evidence to indicate that the rail line is not being downgraded and is, in fact, being reasonably well maintained, there is also evidence to show that virtually nothing has been done by CN since 1949 to improve on the substandard rail line which they inherited at that time. Indeed, except for some subgrade widening and the above noted maintenance, the line today is very similar to when it was originally constructed. The winding, narrow gauge facility is out of step with most North American lines and, as such, a severe handicap to an efficient rail operation in this Province.

Short of complete rebuilding with a standard gauge line, there is very little which can be done with the present railway which would improve it, where from a

service standpoint, the service offered would be competitive with other modes. Even if the railway were reconstructed, the existence of the Gulf and the problems inherent in getting rail cars across within a reasonable amount of time and within reasonable cost would still cause the railway in this Province to be a substandard service when compared with other modes.

2. Adequacy of Carload Freight Services

The assessment of the service quality as provided by CN is a most difficult task as there is really no objective measurement technique which would ensure a sound evaluation. Certain characteristics can be compared with operations elsewhere and the differences noted. This, however, will not indicate whether the service is satisfactory, for some areas might have a greater or lesser dependence on that service and as a result will have differing viewpoints as to quality. The Commission has chosen to evaluate the service quality from two aspects. Firstly, the views of the users as determined through a detailed opinion poll have been analyzed and discussed, and secondly, those service characteristics for which a measurable quantity can be identified, i.e., transit time, dependability, loss and damage, etc., have been observed and differences in these over recent years noted to ascertain if these are improving or becoming worse.

a) User Opinion

The opinion poll completed by the Commission consisted of a sample of over 1,000 households scattered throughout the Province, plus a detailed interview with 65 of the larger industrial and business concerns which, for various reasons, did not make a presentation at the public hearings. In addition, the evidence of the many organizations and business establishments which made representation at the public hearings was analyzed. Since, however, the carload freight service affects primarily the business and industrial community directly, the opinions discussed are mainly those of this sector.

As far as rail services are concerned, there is widespread dissatisfaction with the carload service as supplied by CN. The major points of concern identified were:

- (i) excessive transit times;
- (ii) poor reliability due to highly variable transit times;
- (iii) unavailability of special equipment, e.g., reefer cars during peak seasons;
- (iv) difficulty in tracing damages;
- (v) high incident of damage;
- (vi) lack of access to management;
- (vii) lack of door-to-door service; and
- (viii) high cost of service.

The Commission did not have the time to investigate all of the complaints mentioned but it is satisfied that as far as the shippers are concerned, the perceived problems are real and have been the prime reason for the dramatic shift from rail to other modes of transport in recent years. Table 5-3 indicates the extent of that shift. Of the 65 companies interviewed, 29 have changed from rail as a mode of transport to some other mode in recent years. Also, in that time no company has been attracted to rail from some other mode.

Table 5-3 Number of Companies Which Changed Mode of Transport in Recent Years.

| | | TO | | | |
|---|------|------|------|-----|-----|
| | | Road | Rail | Air | Sea |
| F | Road | | | | 2 |
| R | Rail | 25 | | | 4 |
| O | Air | | | | |
| M | Sea | 8 | | 2 | |

The most frequently mentioned area of dissatisfaction was the railway's inability to deliver goods within a reasonable time frame on a consistent basis. The average time of 20 days experienced by rail users compared most unfavourably with only six days as experienced by the highway users. In spite of this, some users indicated that if the transit time were consistent, company activities might be arranged to accommodate the rail schedules. However, it was pointed out that rail transit times were very rarely consistent with one company reporting as long as 40 days for a shipment from the mainland to this Province.

b) Transit Times

As already indicated, the transit times as stated by the users of the railway were generally excessive

compared with other modes. In spite of this, however, there is an indication that there is a significant improvement in this aspect of CN's operation. Table 5-4 gives sample transit times as selected at random from the CN files. These are significantly lower than those reported in the Corridor Study. As the process of getting rail cars across the Gulf and transferred to the narrow gauge line accounts for a significant portion of the total transit time, the lower density of rail traffic in 1976 with the attendant reduction in Gulf congestion can be safely assumed to account for this improvement. Certainly constraints on Gulf and transfer capacities do interject additional waiting times either at Port aux Basques or North Sydney. This tends to indicate that as the demand for rail services increases, the longer the transit times become due to the Gulf capacity constraints. This is supported by the number of rail cars backlogged at the terminal yards. In 1974, when rail traffic was at its peak, at times as many as 800 cars were backlogged at North Sydney. In 1977 when rail traffic was only 60% of the 1974 level, virtually no backlogs were experienced.

While the Commission notes the rather large discrepancy between customer reported transit times and those from CN files, no attempt has been made to reconcile the two. The perceived transit time, however, whether real or not is the one which the customer uses to decide choice of mode. Therefore the ones quoted by the users might reflect their experience which has led them to change from CN to some other mode.

c) Reliability

Although the perceived, and indeed experienced, reliability characteristics of the railway have been poor, there is some indication that as the traffic demands decrease, the reliability increases even though the frequency of service might not be as great. The data given in Table 5-4 (standard deviations) is a measure of how close the average transit time represents all of those actually encountered. While there is

Table 5-4 CN Rail Transit Times For Mainland to Newfoundland

| I. Transit times from mainland to arrival at Port aux Basques: | | | | | | |
|--|------------|--------------|-------------|----------------|--------------|-------------|
| From | Perishable | | | Non-Perishable | | |
| | Average | ST Deviation | Sample Size | Average | ST Deviation | Sample Size |
| Halifax/Moncton | 2.2 | .4 | 4 | 2.9 | .9 | 57 |
| Montreal | 4.6 | .7 | 2 | 6.0 | 2.9 | 65 |
| Toronto | 4.3 | .4 | 38 | 6.0 | 1.6 | 126 |
| Prairie Region | 6.4 | .5 | 5 | 9.4 | 1.9 | 26 |
| Mountain Region | 8.7 | 1.6 | 6 | 14.3 | 3.0 | 28 |
| II. Transit times at Port aux Basques: | | | | | | |
| It takes an average of one day from arrival at Port aux Basques until departure by train. | | | | | | |
| III. Normal service time from departure at Port aux Basques to placement at customer's siding: | | | | | | |
| Coner Brook: | | | .5 days | | | |
| Grand Falls: | | | .7 days | | | |
| St. John's: | | | 1.5 days | | | |

no indication as to how often and to what extent some shipments experience long delays, the data does show that there is a reasonable probability that most shipments are being transported within the average times stated, and on a consistent basis.

It should be noted, however, that while in most cases the reliability and dependability of transit times in general leave room for improvement, there seems to be general agreement that in the case of perishable goods, CN makes a concerted effort to move the goods as quickly as possible. Again, the data in Table 5-4 bears this out.

d) Loss and Damage Claims

Service characteristics, as they relate to loss and damage claims, are extremely difficult to evaluate because the records maintained by CN often do not separate between carload, express, coastal and intermodal traffic. The Corridor Study attempted to assess the loss and damage claims on carload traffic by reviewing the files of a sample of shipments. The basic conclusion was that although car to car transfer accounted for only 63% of cars sampled, it accounted for over 90% of the claims paid. In light of the fact that in the the car to car transfer process the freight is physically man-handled, whereas in the truck to truck process, it is not, it is reasonable to assume that car to car transfer still accounts for a majority of the damage claims today.

Data supplied to the Commission by CN for all freight services indicate a marked improvement in both the total number of claims paid and the value of these claims. Table 5-5 shows the CN performance since 1973 for express, coastal, carload and intermodal combined.

Since 1971, CN has introduced numerous improvements such as improved checking, more inspection, use of ro/ro vessels for transport of automobiles, shrink wrap, and collapsible pallets, in an attempt to reduce losses and damages. The figures presented tend to prove that the investments in equipment and methods are worthwhile, although it should be noted that since 1974 the drastic drop in rail freight handled has to some extent reduced the probability for loss and damage.

Table 5-5 Loss and Damage Claims of CN

| Year | Number of Claims | Amount |
|------|------------------|-------------|
| 1973 | 18,092 | \$1,573,949 |
| 1974 | 18,393 | 2,124,533 |
| 1975 | 15,149 | 2,473,925 |
| 1976 | 10,635 | 1,456,765 |
| 1977 | projected | 1,244,000 |

e) Costs and Revenues

In assessing the cost structure of CN carload freight service, it is necessary to divide the service into three

distinct parts; first, the mainland costs associated with Newfoundland freight as it is hauled over mainland lines; secondly, the costs of bringing Newfoundland freight across the Gulf; and thirdly, the costs associated with the haulage of freight within the Province. This latter portion includes freight destined for Island points from mainland origins and freight destined for Island points from Newfoundland origins. With respect to the costs associated with the Gulf movement, it should be noted that there are considerable differences between the costs to CN rail for these movements and the total costs incurred; the difference being a large deficit or subsidy paid by the Federal Government. The extent of that subsidy is discussed in subsequent sections of this report.

It has long been suspected that the CN railway was losing considerable sums of money on its Newfoundland operation. The railway, after being in a profit position during the war years, was losing money at the time of Confederation. The MacPherson Royal Commission Report in 1961 indicated that the losses at that time were running in the neighbourhood of six million dollars annually. Because separate accounts for all aspects of the Newfoundland operation have not been maintained, it has been impossible to determine the exact year by year deficit incurred by the railway. Information presented to the Commission by CN states that after suspecting such losses for some time, the corporation in 1976, took a detailed look at the Newfoundland situation. Using the costing procedures as established by the Canadian Transport Commission and allocating *all* the revenues associated with Newfoundland to the Newfoundland accounts, the railway determined that for 1976 the losses amounted to \$14,155,996 on carload freight, and \$7,322,991 on express. In addition, approximately \$2 million was lost on the Roadcrusier operation, for a total loss by CN of just over \$23.5 million.

In arriving at these figures, certain assumptions were made and cost allocations carried out which under normal business costing methods would not be routine. The Commission is convinced, however, that the procedures followed lead to a most conservative estimate of the losses and any relaxation of the cost allocation would not improve the picture but rather make it much worse. Being a scheduled "D" Crown Corporation, CN is not compensated by the Federal Government for these losses but rather must recover them from the operations in other parts of the system. This situation has put considerable burden on the Newfoundland segment of the operation to at least break even. Since the above figures reflect only the rail cost to CN and not the total costs incurred in moving rail freight one must next examine the other component, namely the Gulf related rail costs, to ascertain what the true costs of servicing this Province by rail are.

The principal problem in determining the total rail costs on the Gulf lies in the fact that while the Gulf service caters to passengers, passenger related vehicles, a variety of trucks, plus rail, there are no separate accounts for each service. Determination of the costs associated with each requires that some allocation method be adopted whereby the cost incurred is estimated. The Commission has chosen to do this on a usable space basis, measured in terms of auto equivalents, and after following this process, has determined that the operating deficit attributed to rail freight amounted to 28.28 million dollars in 1976. This does not include any capital costs and, when added to the shortfall experienced by the railway, gives a total loss on railway operations to be approximately \$42.5 million (for 1976). When capital costs are included, the loss approaches \$50 million annually.

In addition to the magnitude of the current year loss and the indication that losses have been a feature of the carriage of railway freight for sometime, the Commission was concerned as to (1) whether the losses have consistently been of the same order of magnitude, (2) if there are any components of the system which are clearly more costly than others and (3) who should meet the losses in future years if it is deemed that the railway should continue in its present state.

Because of the non-availability of detailed cost data for previous years, it is not possible to determine a time series of losses associated with rail. The limited data available does indicate, however, that substantial losses have been incurred for some time. For instance, the loss attributed to rail on the Gulf ferries for 1974, the peak year for rail freight traffic in the last decade, was considerably more than the year under study (1976).

In spite of the apparent continued losses on the Newfoundland operation, not all aspects of the service are equally inefficient in the economic sense and it would be totally erroneous to discard the whole system without a detailed examination of its parts.

Traffic on the Newfoundland system can be classed into two groups: interprovincial, i.e., traffic either originating or destined for mainland centres; and intra-provincial, i.e., traffic moving wholly within the Island. CN revenues as shown in Table 5-6 indicate that the 1976 intra-traffic accounted for \$3.2 million or approximately 10% of the total Newfoundland associated revenues, while mainland traffic accounts for the remaining \$32.9 million. While the cost data presented to the Commission by CN does not separate the total costs into "intra" and "inter" on the same basis as that of the revenue data (see Table 5-6) cost allocations carried out by the Commission indicate that for the mainland traffic which is basically high rated, long haul commodities, the revenues generated approach the variable costs. That is, this traffic is nearly meeting the immediately incurred expenses,

but is not contributing to the fixed or overhead costs.* Intra-traffic, however, is not coming close to meeting the variable costs associated with moving the traffic. This has been a basic characteristic of the CN cost structure for some time, which a report completed in 1972, by CN (Moncton) as part of the Newfoundland Mainland Transportation Study showed that while intra-traffic was losing money, inter-traffic was not only contributing to overhead, but making a very small profit.

Table 5-6 CN Revenues, Costs and Deficit for Newfoundland Carload Operation—1976

| | |
|-----------------------|-----------------------|
| 1. Revenues | |
| Inbound Traffic | \$24.3 million |
| Outbound Traffic | 2.3 million |
| Local (Intra) Traffic | 3.2 million |
| Intermodal Traffic | 1.8 million |
| Payments from Express | 4.4 million |
| Other Revenue | 0.1 million |
| Total Revenue | \$36.1 million |
| 2. Costs | |
| Newfoundland Costs | \$36.2 million |
| Mainland Costs | 12.2 million |
| Payments to Express | 0.3 million |
| Payments to Marine | 1.6 million |
| Total Costs | \$50.3 million |
| 3. Deficit | \$14.2 million |

Source: Supplementary information provided to the Commission of Inquiry into Newfoundland Transportation, Canadian National Railways, November, 1977.

Considering the above, however, it would be entirely fallacious to assume that in the light of the costs allocations and the rather deplorable picture for the intra-freight movement, the elimination of this service would result in a marked improvement in the interprovincial freight or total Newfoundland service. To remove the intra while retaining the mainland service would merely shift the fixed costs associated with intra-traffic to the mainland traffic because the line and other equipment on the Island would still be required regardless of the origin of the freight.

From the revenue side, unit revenues generated by the Newfoundland traffic are generally good and compare favourably with the remainder of Canada. Table 5-7 indicates the difference between inbound freight to Newfoundland, and the Canadian average as determined through a 1% waybill sample analysis carried out by the Canadian Transport Commission (CTC). It should be noted however, that the Canadian average is strongly influenced by the carriage of grain which moves under a statutory rate well below the average. Although the direct revenues appear good, the three items which adversely affect the profit picture as far as Newfoundland is concerned are; (1) the small

* A very important fact to remember is that \$12.2 million costs, identified as mainland costs, do not include any fixed costs.

amount of freight carried, (2) the low payload per car, and (3) the relatively high fixed cost associated with the Newfoundland line. (50% of total costs classed as fixed in Newfoundland as compared with 25% national average.)

Table 5-7 Comparison of Unit Rail Revenues
Nfld./Canada

| | | Nfld. (inbound) | Canada |
|------------------|-------|--------------------|--------|
| Rev/ton mile | c | 3.65 | 2.17 |
| Rev/car mile | \$ | 1.04 | 0.99 |
| Avg haul per ton | Miles | 1,551 | 592 |
| Avg load per car | Tons | 28.4 | 54.3 |

One of the disturbing aspects of the CN's revenue picture is the extremely small amount attributed to intra-provincial movements. Since the length of haul for these movements is usually short, truck is in a much more advantageous position to compete. At the same time, rail costs are high. If rail rates are increased in an effort to increase revenue, the truck becomes even more competitive and attracts a larger share of the market.

3. Conclusions and Future Prospects

The railway in this Province, which has a particularly inadequate fixed plant is constrained by conditions at the Gulf in trying to obtain a share of a transport market which is barely large enough to support one major mode rather than four (Rail, Road, Air & Sea). It also competes against carriers which have inherent advantages over rail, and it finds itself on a spiral for which the prospects for an economical service are extremely dim.

Forgetting for the moment the 14 million dollar loss incurred by the railway (because it might be logically argued that this is an internal matter for CN and it is by far not the only component of the CN system which loses money) if by some mystical means all competing carriers to the railway withdrew, leaving the railway to have all the business, based on past performance, the service would deteriorate as there is insufficient capacity at the Gulf interface to handle the traffic. Unless more ships, larger yards and better handling facilities were installed at the Gulf, delays to goods would be intolerable. To supply facilities of this type would require massive subsidies, perhaps in the neighbourhood of 150 to 200 million dollars annually; hardly a situation which could be encouraged due to the more economical methods of meeting the Province's transport needs.

As to the prospects of recovering the losses which the railway is now incurring, this also looks extremely poor.

Perhaps a more important question to answer is, what is the likelihood of a financial turnaround for CN in the foreseeable future or to what extent would

revenues have to improve to enable the railway to at least break even?

The 1972 study, as previously referred to, showed that a 50% increase in interprovincial traffic would enable the service to break even. Since 1972 the cost of materials and labour have increased dramatically and it is now estimated that with the current mix of traffic and the current rate structure, a 100% increase in traffic from the mainland would still not bring the railway to a profitable position.

As earlier shown, CN's revenue is so dependent on the inbound traffic that any major improvement would have to come from this traffic. If inbound traffic doubled and the traffic mix was maintained revenues from inbound traffic would double to \$48.6 million and total revenue would increase to \$60.4 million. If the inbound traffic doubled, the mainland costs would double to \$24.4 million since these are variable costs only. The \$36.2 million costs in Newfoundland are both fixed and variable and include fuel and crew costs as well as interest and depreciation charges, but even if one assumed that no additional costs were incurred in Newfoundland and the costs remained at \$36.2 million with double the inbound traffic the total costs would now be \$62.5 million, producing a deficit of over two million dollars.

If no new freight were attracted to the railway, even if CN were to increase freight rates, the prospects for a viable operation are no better. Ignoring competition for the movement, if the railway could increase the rates on inbound traffic by 50%, inbound revenue would increase to \$36.4 million and total revenues to \$48.2 million, still less than total costs of \$50.3 million which would not change.

In spite of the bleak economic outlook for the railway, there are widely held misconceptions that major improvements to the physical plant would result in better service and hence improve patronage. This, however, is not likely to be the case. As mentioned earlier, the elimination of some of the Gulf interface problems would require a standard gauge line. While this would reduce the time now taken for car transfer, it would not speed up the process of getting the rail cars across the Gulf. Unless the whole railway were to be rebuilt, merely putting a wider gauge on the existing roadbed would not solve the grade and curve problems which now exist. Thus, the only significant changes in the operation through building a standard gauge on the existing bed would be the elimination of the jobs of those workers now involved in the car to car and truck to truck transfer at Port aux Basques and perhaps a saving in transit time of about 10 hours.

As also pointed out earlier, construction of a new standard gauge railway would cost 800 million dollars and while a very fast speed of operation could then be maintained all across the Island, the problems

associated with the Gulf operation would still remain. In light of this, an expenditure of this magnitude does not look appropriate.

The range of improvement alternatives which would see improved services by rail are severely limited and it is unlikely that, given the present growth rate of the provincial economy, large scale investments in the railway or related infrastructure could not be justified.

Assessment of Highway Infrastructure

1. *The Primary System of Trans Canada Highway*

There is no doubt that the Trans Canada Highway forms one of the most vital links in this Province's transportation system. One only needs to observe the virtual explosion of truck traffic and the phenomenal growth in passenger travel since its completion in 1965 to verify that this facility has not only gained widespread acceptance, but has become the backbone of the system. It is perhaps because of this that much concern has been voiced as to its present condition and its apparent deterioration in recent years.

2. *Minimum Standards*

The original Trans Canada Highway Agreement between the Government of Canada and certain provinces established a range of minimum and maximum construction standards. When Newfoundland entered the Agreement in 1951, it was the opinion of the Province that construction of the highway to maximum geometric standards was beyond the financial capability of the Province. Thus 5 foot shoulders were built instead of 10' and pavement was constructed to 20' & 22' instead of a more desirable 24'. In a few instances permission was sought, and eventually granted, to allow the Province to construct to standards below the minimum. For instance, the original standards set maximum allowable grades along the highway at 6%. To achieve this would require very substantial amounts of rock and fill to be moved, which would be reflected in extremely high costs. Therefore, in places where costs would be prohibitive, the Province was permitted to drop below the established standard.

With the passage of time, and as travel demands and traffic volumes increased, it became questionable as to whether the minimum standards as set out in the Agreement were in fact still compatible with the type of traffic to be accommodated. In 1963 the Canadian Good Roads Association, now called the Roads and Transportation Association of Canada, published a set of geometric design standards for Canadian roads and streets which, except for recent changes due to metrication, are still in existence. The set of Roads and Transportation Association of Canada standards which this Province has decided to use in its rebuilding of the Trans Canada Highway are

those for an arterial (RAU 60) undivided rural road with a design speed of 60 mph. It should be noted that these standards meet or exceed those minimums established in the original Agreement. An important fact to note is that it is not necessary for all provinces to adhere to the same set of standards, but rather the standards should be consistent with the traffic to be handled.

3. *Evaluation of Trans Canada Highway*

As part of the Trans Newfoundland Corridor Study, an extensive physical survey of the Trans Canada Highway was completed in 1973/74. In addition to comparing the existing road with the geometric design standards for a RAU 60 highway, the roadway was analyzed with regard to physical condition, traffic volumes/capacity, and substandard sections. The Commission has determined that very little, if any, work has been carried out on the Trans Canada Highway since that study, and the deficiencies identified at that time are still present, only in some cases these are even more pronounced. The basic findings of that study were as follows:

a) Passing sight distance is impeded in 144 locations by minor vertical curves.

The recommended minimum passing sight distance is 450 metres at which the passing opportunity is 25%. Passing sight distance of 600 metres provides 100% passing opportunity. By not having sufficient passing sight distances, the safe and efficient operation of motor vehicles is restricted.

b) Truck climbing lanes are too short in length and are lacking completely in some needed areas.

A study on climbing lanes in 1973 by the Department of Transportation and Communications revealed that 25.76 miles (41.46 km) of extra climbing lane would have to be added to the existing climbing lanes to bring them up to Roads and Transportation Association of Canada standards, not including the tapered sections which allow these lanes to merge with main lanes. This would add another 13.0 miles for a total of 38.85 miles. This is over double the 12.23 miles mentioned in the Corridor Study. The difference is due to higher standards used by the Department of Transportation and Communications. In addition, the Corridor Study indicated 71.50 miles (115.06 km) of new climbing lanes are needed. In reality probably more is needed because of the higher standards in use now. No data is available to substantiate the actual length of new lanes required, but since no new construction has taken place in recent years the requirement is at least as much as above.

c) Excessive curvature (greater than Roads and Transportation Association of Canada standards) was found in 403 locations.

Although the maximum allowable rate of curvature by standard for class RAU 60 is 5°, the usual procedure is to design the curve so that a vehicle takes 18 to 24 seconds to negotiate the turn. In this regard, the Corridor Study found 403 curves which were substandard. No curve improvements have been made since the Corridor Study.

d) About 84 miles of the Trans Canada Highway have substandard shoulder width of 3 to 6 feet.

This is a direct consequence of the relaxation of the standards when the road was built. Minimum standard at that time called for five foot shoulders, but the desirable was ten feet. Most provinces built to the ten foot standard. Newfoundland chose five feet for earlier sections of the highway. These substandard shoulders occur from Port Blandford to Northwest River, Terra Nova Park (west boundary) to Middle Brook and from George's Lake to Crabbe's River. These are the sections of the highway which today are giving the most problems.

The only improvement since the Corridor Study has been a short section between Northwest River and Terra Nova Park (east boundary) approximately one mile in length. Research into the effect of shoulder widths has shown that two metres is the critical width of a shoulder. Below this width, higher accident rates occur, and operation and capacity are restricted. In addition to the substandard shoulder width, the above sections also have a 22 foot pavement width (2 - 11' lanes) instead of the standard 24 foot width. One effect of these substandard elements is to lower the basic capacity of the road by as much as 18%.

e) Aside from speed restrictions in some towns, through which the road passes, there are four curves on the main highway requiring speed restrictions.

Although the Corridor Study indicated four curves requiring speed restrictions or advisory speeds, consultation with the Department revealed there are actually eight. These are shown on the map in Figure 5-1. Since September, 1977, most 40 mph zones have been changed to 60 km/h with the exception from Deer Lake to Pynn's Brook which was raised from 40 mph to 70 km/h. In addition to the speed zones in towns mentioned in the Corridor Study, there are two new speed zones, one at Whitbourne and one at Clarendville.

f) Drainage and slopes are generally good although some areas have problems.

The Commission generally concurs with this but notes that little has been done since to alleviate the existing problems. Of particular concern is the problem of vegetation growth and the resultant restrictions on sight distance. Much of the work done to rectify this has been centered in Central and Western Newfoundland.

g) Passing sight distance is below standard in many areas due to horizontal curvature, vertical curves on long tangents, combinations of horizontal and vertical alignments and excessive vegetation.

The Roads and Transportation Association of Canada manual assumes that passing opportunities may occur where the passing sight distance is greater than 450 metres. A survey in 1976, by the Department of Transportation and Communications, determined the availability of passing opportunity as a percentage of the length of sections of the Trans Canada Highway. This survey was based on analysis of highway plans and drawings rather than on actual on-site investigation. The map in Figure 5-2 shows the percentage of passing opportunity as determined. The effect of passing opportunity on highway capacity is illustrated in Table 5-8. Thus it can be seen that for section (1) Port aux Basques to Crabbe's River, the highway can only reasonably carry 80% of its capacity due to the limited passing opportunities.

Table 5-8 Highway Capacity Versus Passing Opportunity

| Passing Opportunity > 450 Meters % | % Attainable Capacity (Level C) |
|------------------------------------|---------------------------------|
| 100% | 100 |
| 80% | 93.5 |
| 60% | 84.7 |
| 40% | 74.2 |
| 20% | 62.1 |
| 0% | 49.2 |

h) Many of the existing intersections are of substandard design.

The Corridor Study produced a list of 120 Trans Canada Highway intersections examined, of which 57 were considered substandard. However, after reviewing each of the analyses there are certain intersections deemed adequate by the Corridor Study but inadequate by the Commission and vice versa. For instance, many of the Provincial Park intersections were deemed adequate by the Commission because of the relatively low utilization of some parks and the fact that most parks are not functional except in the summer. The map in Figure 5-3 shows the location of intersections, considered substandard. Some improvements have been made in some intersections, in particular at the intersection of the Trans Canada Highway and Route 2 (grade separation), Avondale Access Road, Arnold's Cove Road, Clarendville Access Road (not paved yet), several intersections in Terra Nova Park (of substandard design still), Union Street (Grand Falls—grade separation), Lincoln Road Overpass (Grand Falls), Route 390 to Springdale, Route 430 at Deer Lake (grade separation) and the Burgeo road. There has also been some good revisions of

Figure 5-1

REDUCED SPEED ZONES T.C.H.

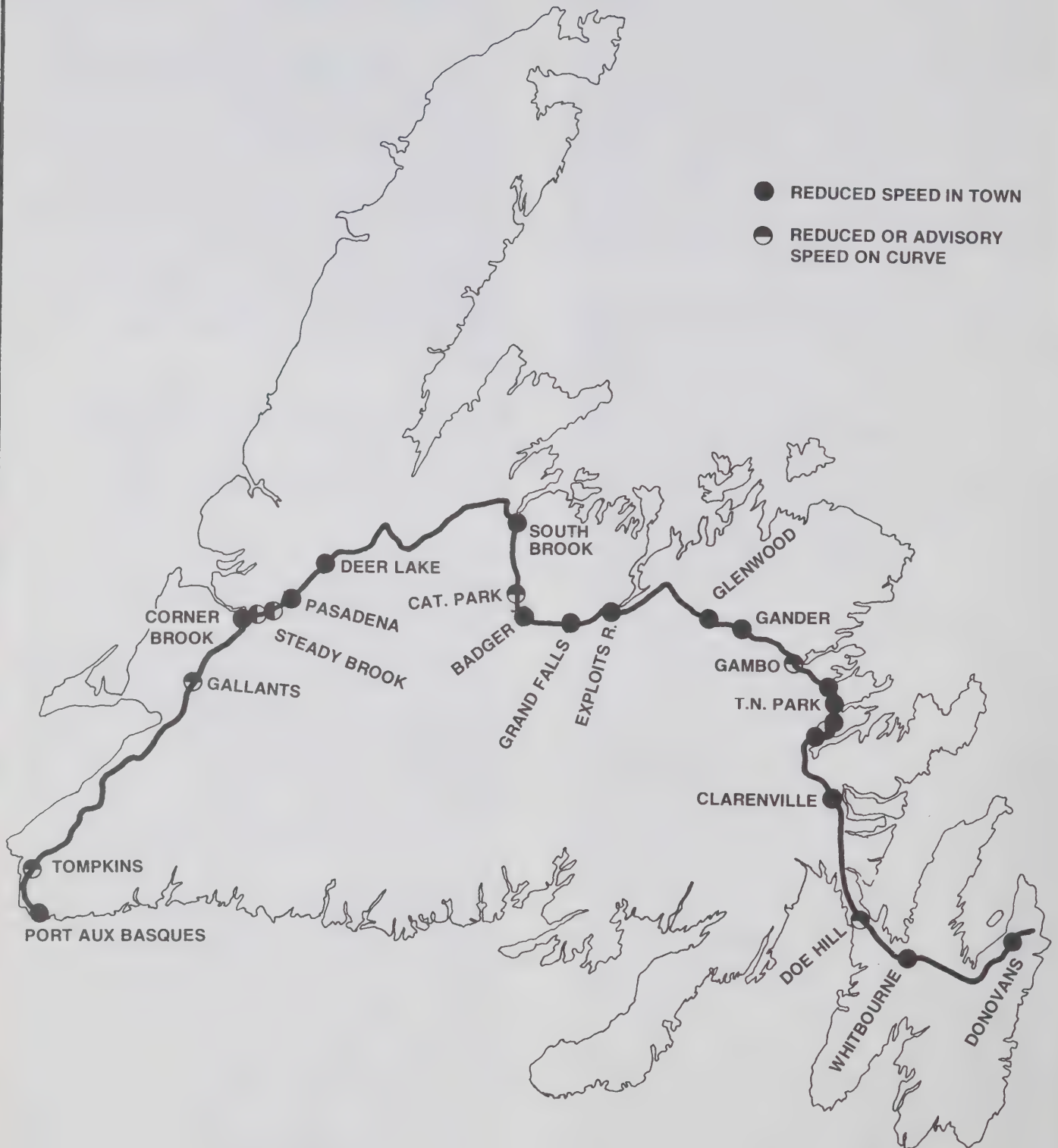


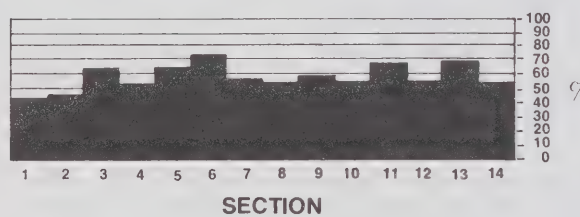
Figure 5-2

PASSING OPPORTUNITIES* ON SECTIONS OF T.C.H.

* PERCENT AVAILABLE PASSING
SIGHT DISTANCE (P.S.D.) > 1500 FT.

5 SECTION

AVAILABLE P.S.D. BY SECTION



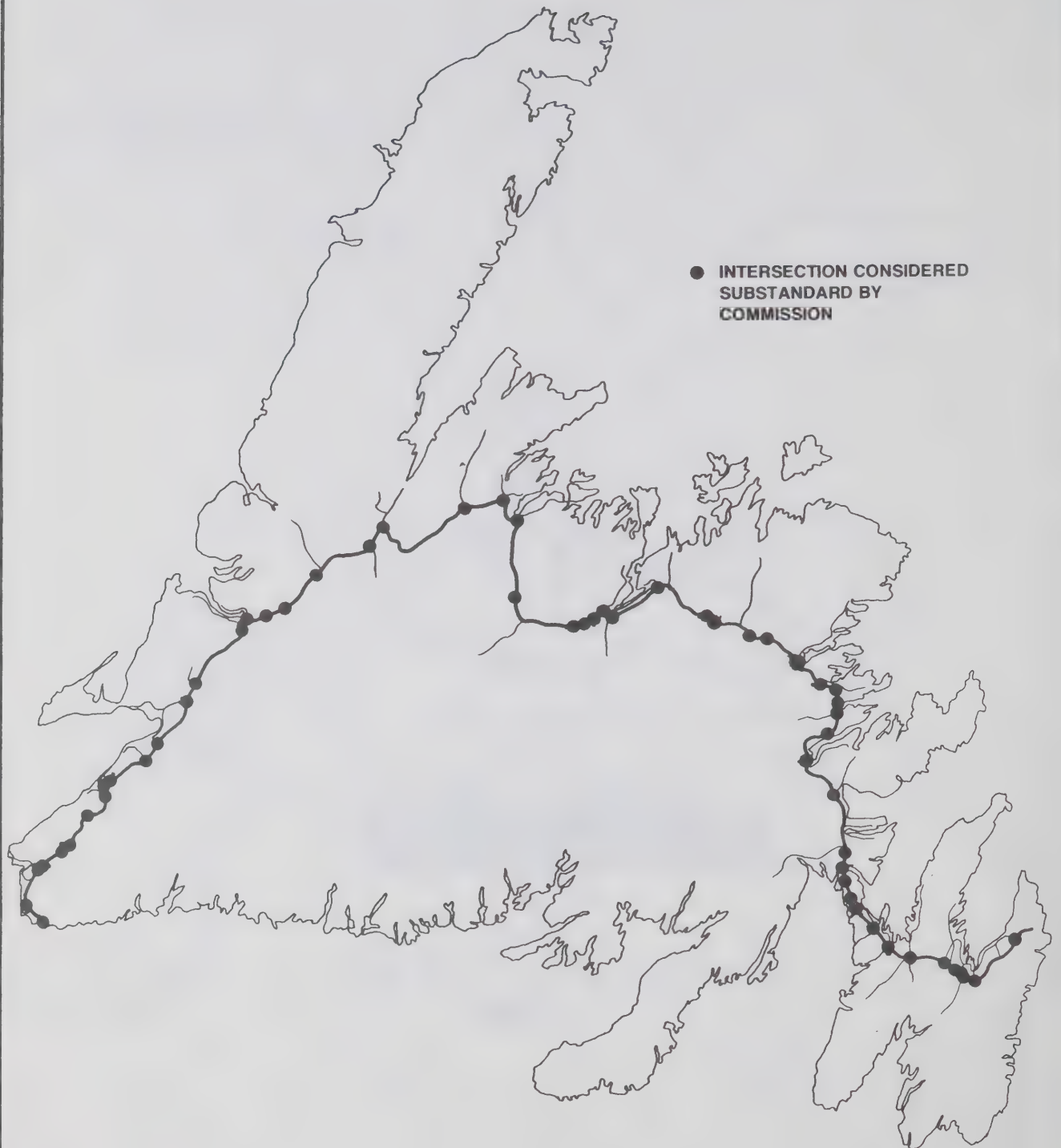
SECTIONS

1. PORT AUX BASQUES — CRABBE'S RIVER
2. CRABBE'S RIVER — GEORGE'S LAKE
3. GEORGE'S LAKE — CORNER BROOK
4. CORNER BROOK — DEER LAKE
5. DEER LAKE — GRAND FALLS
6. GRAND FALLS — BISHOP'S FALLS
7. BISHOP'S FALLS — GAMBO
8. GAMBO — T.N. PARK
9. T.N. PARK — PORT BLANDFORD
10. PORT BLANDFORD — GOOBIES
11. GOOBIES — CHANCE COVE RD.
12. CHANCE COVE RD. — ARGENTIA ACCESS
13. ARGENTIA ACCESS — ROACHE'S LINE
14. ROACHE'S LINE — ST. JOHN'S

SOURCE: DEPT. OF TRANS. & COMM.

Figure 5-3

SUBSTANDARD INTERSECTIONS ON T.C.H.



pavement markings at some intersections that now provide longer left turn lanes, but there has simultaneously been some needless eradication of previously good markings. There seems to be little standardization in the design of intersections on the Trans Canada Highway.

i) The roadbed is poor in many areas.

j) Road surface and riding quality are generally good except in areas from Port Blandford to Notre Dame Junction and George's Lake to Crabbe's River.

The Trans Newfoundland Corridor Study made general comments about the roadbed, road surface and riding quality on the Trans Canada Highway and identified in general the sections from Port Blandford to Grand Falls and George's Lake to Crabbe's River (west coast) as being inferior to the rest of the TCH.

Analysis was made by the Commission of data derived from Present Performance Rating surveys by the Department of Transportation & Communications. The Present Performance Rating (PPR) is the opinionated rating of a group of highway officials (usually by a panel of five experienced engineers) as to the present ability of a particular section of highway pavement to serve high volume, high speed mixed traffic. Measurement is made on a scale with a range of 0.0 to 10.0. The rating is obtained by each member following a set of rating rules. New Canadian pavements have PPR values ranging from 8.0 to 9.5 while reconstruction or resurfacing measures are instituted at a level of 4.5 to restore deteriorated surfaces to acceptable quality. The rating is decided to a very large extent on riding quality and is influenced considerably by rutting and to some degree by the amount and appearance of cracking or patching. Ignored are geometric design features, skid resistance, railway crossings, bridge abutments and culvert bumps.

While the ratings supplied to the Commission was generally for the years 1974 and 1975, some sections have not been done since 1967 and 1971. Where these latter sections have been rebuilt or repaved allowance has been made. Figure 5-4 shows the ratings of sections of the Trans Canada Highway as close as could be estimated for the current situation. The higher the column, the worse the rating. The sections which have ratings in the "fair" to "replace" range are as follows:

- (i) Long Harbour to Arnold's Cove (43.5 km)
 - (ii) Gambo to Gander (42.4 km)
 - (iii) George's Lake to North Branch (118.9 km).
- (Note one 19 km section rates slightly better than fair.)

k) Guard rail is lacking in areas where it is required. The Corridor Study indicated that 80,460 ft. (15.23 miles) of guard rail were needed to meet the stand-

ards. There has been no improvement in this regard since the Corridor Study.

l) Signing and Pavement Markings are inadequate.

There has been a noticeable improvement in signing on the Trans Canada Highway since the Corridor Study. However, as it is the policy of the Department of Transportation and Communications to manufacture its own signs, and as the present capacity of the sign shop is limited, the shop would have to be enlarged before the signing could be expected to reach a national acceptable quality. Pavement markings (as mentioned in 8) at intersections have been improved in some cases. Only limited use is made of edge lines which are needed in some areas due to fog conditions (e.g., Isthmus of Avalon). The Trans Canada Highway is the first highway to be marked each year. The general procedure is to paint the center-line with the paint truck and follow up the intersection painting with smaller units. However, this intersection painting is sometimes not completed until July or August as the smaller units have to do much of the local road center-line painting and sometimes the truck is out for repairs. This occurred in 1977. Also, the Avalon Peninsula crew has to go to Labrador City area in the summer and this means that no marking is done on the Avalon Peninsula while they are away.

m) Sections from St. John's to Argentia Access Road, Bishops Falls to Grand Falls, and Deer Lake to Corner Brook are carrying traffic in excess of the attainable service volume at Level of Service C, the desirable level for most practical design purposes.

Level of Service is a qualitative measure of the effect of a number of factors which include speed and travel time, interruptions, freedom to maneuver, safety, comfort, convenience and operating costs. There are six levels of service from A to F, as defined in Table 5-9. This table shows for some sections of the highway the volume of traffic normally accommodated at a 'C' Level of Service compared with what is actually being encountered. The result is that the service level is lowered.

The following is a brief description of the Level of Service concept as applicable to highway capacity.

Level of Service "A"—Free flow conditions with low volumes and high speeds.

Level of Service "B"—Stable flow with operating speeds beginning to be restricted somewhat by traffic conditions.

Level of Service "C"—Stable flow but speeds and maneuverability are more closely controlled by the higher volume.

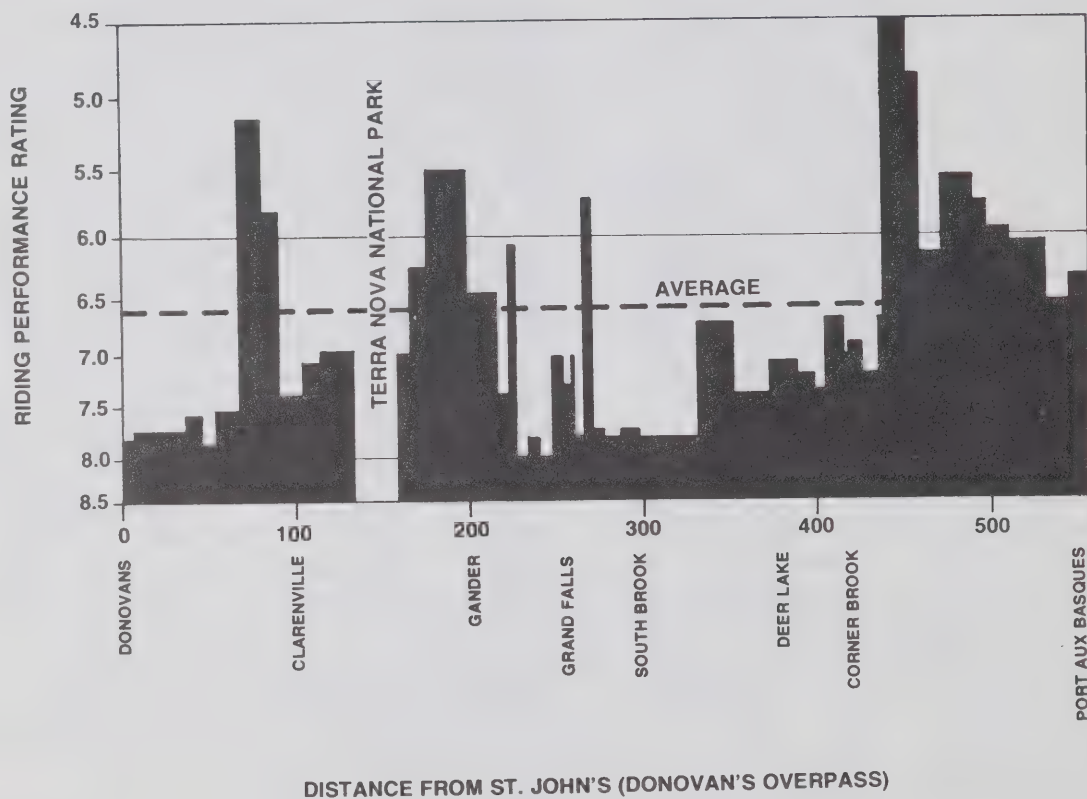
Level of Service "D"—Approaching unstable flow with tolerable operating speeds though considerably affected by changes in operating conditions.

Level of Service "E"—Unstable flow with low operating speeds and possible momentary stoppages.

Figure 5-4

PRESENT PERFORMANCE RATING¹ OF SECTIONS OF TRANS CANADA HIGHWAY IN NEWFOUNDLAND

| | | |
|---------|------------|-----------|
| Rating: | 0 - 4.5 | Replace |
| | 4.5 - 6.0 | Fair |
| | 6.0 - 8.0 | Good |
| | 8.0 - 10.0 | Very Good |



(1) THE RATING OF THE PRESENT ABILITY OF A SECTION OF HIGHWAY PAVEMENT TO SERVE HIGH-SPEED, HIGH VOLUME MIXED TRAFFIC. BASED ON OPINION OF EXPERIENCED ENGINEERS AND RATED ON A SCALE FROM 0 TO 10 WITH NEW PAVEMENT RATED FROM 8.0 TO 9.5 AND RECONSTRUCTION OR RESURFACING DESIRABLE AT A RATING OF 4.5. A RATING OF 8.5 WAS CHOSEN AS AN ACCEPTABLE STANDARD.

SOURCE: DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS

Level of Service "F"—Forced flow at low speeds with short or long stoppages in which both speed and volume can drop to zero.

By 1987 the sections from St. John's to Arnold's Cove Access Road, Bishops Falls interchange to Lincoln Road interchange, Deer Lake interchange to Massey Drive, Corner Brook and from Grand Bay intersection to Port aux Basques will all have volumes in excess of that attainable at Level of Service C.

Since the Corridor Study, very little improvement has been carried out on the Trans Canada Highway, and frost heaving has added further to the deterioration of this highway.

Table 5-9 Actual Traffic Volumes Versus Computed Volumes for 'C' Level of Service

| Section | Computed Service Volume (Level C) | Actual Volumes | Present Level of Service |
|---|-----------------------------------|----------------|--------------------------|
| St. John's—Donovans | 682-v.p.h. | 1,988 | E |
| Donovans—Foxtrap Access | 682-v.p.h. | 1,157 | D |
| Foxtrap Access—Holyrood Access | 682-v.p.h. | 984 | C-D |
| Holyrood Access—Roache's Line | 682-v.p.h. | 843 | C-D |
| Roache's Line—Argentia Access | 769-v.p.h. | 671 | B-C |
| Bishops Falls Center—Union St. (G. Falls) | 917-v.p.h. | 827 | C |
| Pasadena—Riverside Drive (Corner Brook) | 718-v.p.h. | 703 | C |
| Riverside Drive—Massey Drive | 718-v.p.h. | 862 | C-D |

4. Adequacy of Trans Canada Highway

As a primary highway on which great dependence is placed for the movement of goods and people, the Trans Canada Highway, because of its many deficiencies, is grossly inadequate. The opinion poll carried out on behalf of the Commission indicated that reconstruction and upgrading of this highway is held as a high priority item by a vast majority of Newfoundland residents. Also, upgrading of the highway was one of the major concerns of people who presented briefs at the Formal Hearings of the Commission. The major impacts of the Trans Canada Highway deficiencies, i.e., broken pavement, pot holes, frost heaves and substandard geometric design, are attributable factors to low comfort levels, higher accident rates, lower operating speeds, higher operating costs, excessive damage to cargo and excessive maintenance costs. Additional costs are also incurred as cargo has to be more securely packed. These problems prevent the trucking industry from performing to its full potential and the general public is forced to incur costs in excess of what is normal for other parts of the nation.

5. Comparison with Trans Canada Highway in Other Provinces

Considering that in Newfoundland there is no highway alternative to the Trans Canada Highway, one would expect that this prime and indeed, only, trans-provincial highway would be on a par with the primary roads in other provinces. Such, however, is not the case. Except for Prince Edward Island, which has severe soil problems connected with highway construction, the Trans Canada Highway through Nova Scotia and New Brunswick is superior both in alignment, cross section and general condition than that in Newfoundland. Higher operating speeds, smaller grades and curves, use of fully paved shoulders and higher allowable truck loadings, all indicate that the Trans Canada Highway in these provinces was built to a higher standard than in Newfoundland.

6. Secondary Road System

Generally speaking, the highway system (other than the Trans Canada Highway) has been in a state of evolution, with many of the collector roads only recently upgraded, or in the process of being upgraded, to an acceptable standard. Moreover, in most cases, the standard being provided is perfectly adequate for the traffic at present and in the foreseeable future. There are, however, several highways, built some time ago, that are now overtaxed due to their role being altered from rural highways to almost what can be called town roads, and with negligible improvement done to them. Due to their nature, these roads have not been built to the same standard as the Trans Canada Highway, i.e., they have narrow pavement, lower horizontal and vertical alignment standards, narrower shoulders and more accesses onto them. As a result, their capacity to carry traffic is lower than the Trans Canada Highway.

An examination of the highway system (other than Trans Canada Highway) has been made to determine what highways are presently substandard with regard to geometrics and capacity. Since the analysis of geometrics is a considerable task, the method of analysis is to use data supplied in the "Task Force on Transportation and Communications" report of 1974 and updated where necessary.

There are two classifications of highway considered, the rural collector road and the rural local road. The rural collector road collects traffic from local roads and feeds it to arterials or distributes it from arterials to locals. They have a land service function of equal importance to their traffic service function in that they directly serve the adjacent properties. Rural local roads provide land access, allowing vehicles to reach the frontage of properties and generally have low traffic volumes. Collector or local roads that are currently in process of being upgraded, e.g., Northern Peninsula Highway, North East Coast

loop road and Southern Shore Highway, will not be considered further except where traffic columns may indicate need for improvement.

7. Adequacy of Existing Collector Road System

As mentioned before, the rural collector road collects traffic from local roads and feeds it to arterials or vice versa and has a land service function of equal importance to their traffic service function. The current design standard used by the Department of Transportation and Communications calls for a 70 km/h cross section and a minimum of 70 km/h alignment. It is not practical to give a detailed breakdown of each section of a road which may be substandard. However, the following list shows that major sections of the collector road system are substandard due to geometrics and/or capacity. It is interesting to note that two collector roads, Topsail Highway (Route 60) and Conception Bay Highway (Route 70) have, by the nature of development along them, become more of an urban road and are presently operating at low levels of service.

a) Inadequate Sections

- 1) Route 10—Kilbride to Goulds
- 2) Route 20—St. John's to Torbay
- 3) Route 40—St. John's to Portugal Cove
- 4) Route 60—St. John's to Foxtrap
- 5) Route 70—Trans Canada Highway to Carbonear
- 6) Route 340—Trans Canada Highway to Lewisporte
- 7) Route 450—Trans Canada Highway to Port au Port
- 8) Route 230—Clarendville to Lethbridge
- 9) Route 360—Junction Route 361 to Harbour Breton
- 10) Route 31—Witless Bay Line
- 11) Route 432—Junction Route 430 to Main Brook
- 12) Route 433—Junction Route 432 to Englee
- 13) Route 520—Quebec Border to Red Bay

Sections 9, 10, 11, 12 and 13 presently have gravel surfaces, but should be at least brought up to the geometric standard (which does not necessarily means asphalt paving). There are also numerous other sections of collector roads which are substandard, but which can be remedied by a continuing upgrading program. It should be noted that it is much easier to provide proper alignment on the roads and widen cross-sections later as required than to try to alleviate alignment problems caused by poor design in the first place. Studies have shown that accident rates substantially increase on gradients greater than three percent and on curves less than 300 metres radius. It is sufficient to say that the utmost care should be taken in the design of roads.

One interesting point is the lack of provision of truck climbing lanes on collector roads. Only two

lanes exist, one on the Argentia Access Road (Route 100) and one on the Burin Peninsula Highway (Route 210). In general, truck-climbing lanes should be provided where the effect of slow moving trucks is to bring the level of service below the desired minimum. (For example, on a 2% grade of any length, the effect of one truck is equivalent to two automobiles but on a 7% grade, 6 km long, the effect is equivalent to 107 automobiles. It would thus take only five or six heavy trucks in one hour to reduce the level of service to an unacceptable level.) There are several collector highways in Newfoundland that warrant truck-climbing lanes. For example, the Northern Peninsula Highway (Route 430) through Gros Morne Park and the Harbour Breton Highway (Route 360) and near Harbour Breton.

8. Adequacy of the Local Road System

A study of the local roads on the Island revealed that all the existing two-lane local roads will have adequate capacity to handle the traffic demand in the next ten years. Many local roads are of substandard design, but due to the continuing program of upgrading these roads, there are no foreseeable problem areas. The Province of New Brunswick has found that on low volume roads the highest type of pavement that can be economically justified are seal coats or surface treatments. Seal coating existing asphalt surfaces costs approximately \$7,000 per mile as compared to \$25,000 for 1½" of asphalt. Also, surface treating gravel roads costs approximately \$20,000 per mile versus \$60,000 per mile for an asphalt surface. A mile of surface treatment remains good for about four to seven years and as a rule New Brunswick seal coats surface treated roads every five years at a cost of \$7,000 per mile. Of the 5950 miles of dust-free roads in New Brunswick, almost 64% are seal coated or surface treated. In 1977 the Newfoundland Department of Transportation and Communications placed between 20 and 25 miles of seal coats in two areas, Route 350 (Botwood Highway) and Route 440 (Summerside) with the coating on Route 350 a failure and on Route 440 a relative success. Costs averaged \$11,000 per mile, probably due to the short distances used. The Department is anticipating laying 100 miles of seal coat in 1978. No surface treatment of gravel roads is planned in 1978.

9. New Roads Under Construction

There are, at present, two new roads under construction. These are the Burgeo road and the Monkstown road, both of which link isolated communities to the Province's highway system. Both will have gravel surfaces for the time being, with the possibility of some of the Burgeo road being paved later.

10. Labrador Highway System

As mentioned in a previous section, the Labrador highway system is virtually non-existent. There is no interconnection between Labrador City/Wabush and Goose Bay, nor Goose Bay and the south coast of Labrador. There is no connection to other mainland highway systems. Although all sections of the existing highways are able to accommodate the traffic offering, they do possess substandard sections.

The 45 mile gravel road from Red Bay to the Quebec border must be completely upgraded due to sub-standard geometrics. Sometimes, during the winter, it is closed for lengthy periods of time because it cannot be cleared and kept open.

The 160 "tote" road from Goose Bay to Churchill Falls is "use at your own risk" road that is impassable at some periods of the year.

The 114 mile road from Churchill Falls to Esker is a gravel surface all-weather road used for the transportation of goods from the Esker railstop to Churchill Falls. It is kept open year round.

The paved highway from Wabush through Labrador City to the Quebec border has only been finished in the last two years, but there has been a need for upgrading the Wabush to Labrador City portion, particularly at the bridge crossing.

The question of the Trans Labrador Highway has been the subject of a study carried out for the Provincial Government in 1975. It was concluded that the proposed highway was economically feasible with a direct cost-benefit ratio of approximately 3 to 1 and that, if constructed, it would become part of an important national traffic network. It was also concluded that detail work commence immediately and construction begin when the highway location was decided.

11. Public Opinion of Highway System

In addition to the review of previous studies, discussions with provincial government officials and its own research, the Commission had a detailed public opinion poll taken whereby the Newfoundland resident had an opportunity to express his opinion on a wide range of transport related topics. The questionnaire was distributed to 1300 households in the Province from which approximately 1000 were returned. It is not surprising that keen interest was shown with regard to the questions concerning highways. The principle points are outlined here:

- a) For journeys of 30 miles or more, approximately 95% are highway related trips, i.e., either by bus or car.
- b) 73.8% of the respondents felt that highway conditions in the Province were either fair or poor.
- c) The Trans Canada Highway should be upgraded, repaired, widened or rebuilt as a four lane facility.

d) Secondary roads should be upgraded and paved.

e) Amenities such as paved shoulders, lighted intersections, divided highways and more highway signs were not considered of major importance on secondary roads.

12. Community Access

The Trans Newfoundland Corridor Study indicated that in 1974, 65% of the population of the Island lived within a 60 minutes drive of the Trans Canada Highway. The study further states that while there is no proof that good community access to the Trans Canada Highway results in more material well-being, such as income, there is evidence to indicate that communities with good access to Trans Canada Highway travel much more frequently than those without. There is, however, good evidence to show that communities served by road to the main highway network have better access to health care services, education facilities, job opportunities and cultural facilities.

Within this Province, there are several areas which, at present, are either not serviced by road or serviced in such a manner that the true value of the road system cannot be realized. For instance, the area of Bay D'Espoir, although connected to the Province's highway network by a reasonably good road to Bishops Falls, lacks a direct connection with the Avalon and Burin Peninsulas. Because of this, business and cultural links between these areas are inhibited. The principal problem of road accessibility lies, however, with the communities along the southwest coast between Bay D'Espoir and Rose Blanche, the east side of the Great Northern Peninsula and all of Labrador. The absence of roads in these areas places the residents at a distinct disadvantage when compared to other communities which have good highway connections.

13. Conclusions

While there have been very substantial road building projects carried out in this Province over the last two decades, the extent of good quality paved highways is far less in this Province than in the others. The Trans Canada Highway, although adequate when first constructed, is now in a deplorable condition and requires immediate upgrading if the emerging trucking industry is not to be seriously damaged. The secondary trunk roads are in need of massive upgrading to provide good community access and allow for a least cost method of goods transport.

Assessment of Trucking Industry

1. Evolution of Industry

The trucking industry more than any other mode of transport has been in the process of evolution in this Province and perhaps has not even yet arrived at a stabilized state. The industry as a whole has been

fragmented, with many small firms entering and leaving the business on a routine basis. This of course has meant that reliability and dependability were low and in fact, it has been difficult to provide service at all to many parts of the Province.

This rather unstable state cannot be placed totally on the shoulders of the carriers in the industry, as many influences rest fully outside the scope of the major participants. For instance, the retardation and generally poor development of the interprovincial trucking industry has been due at various times, within the last decade, to one or a combination of, 1) the inability to carry large size trucks on the Gulf ferries, 2) the lack of a completed Trans Canada Highway, 3) the impediment to truck travel on the Gulf after vessels with truck capacities were put into service, i.e., waiting times and high fares, 4) a rapid deterioration of the Trans Canada Highway soon after it was officially completed. From the intra-provincial standpoint, the lack of good, if not totally unsuitable roads giving rise to high maintenance and operating costs, plus the sparse and scattered populations resulting in the carriage of small payloads, has hindered the rapid development of a good intra-trucking service.

In spite of the above noted drawbacks, some degree of rationalization and stability can be noted. Table 5-10 gives some fleet comparisons for both the intra and extra provincial operations for the years 1972 and 1976.

Table 5-10 Vehicle Fleet Profile for Trucking Industry 1972-1976

| | Extra Provincial | | Intra Provincial | |
|----------------------------------|------------------|------|------------------|-------|
| | 1972 | 1976 | 1974 | 1976 |
| No. of companies | 80 | 140 | 479 | 344 |
| No. straight trucks | 135 | 77 | 1042 | 490 |
| No. tractors | 189 | 635 | 84 | 476 |
| Ratio Tractors/ Driving Units | 58.3% | 89% | 9.9% | 49.3% |

As far as the extra-provincial fleet is concerned, considerable overall growth both in the number of companies operating and the number of pieces of equipment registered is evident. The most dramatic change, however, has taken place with respect to the intra-provincial fleet, which has seen a shift from 479 companies operating with mainly straight trucks to 344 companies operating with considerably larger equipment.

An important point to note is that the above figures represent only the public or for hire carriers. Since many business concerns in the Province maintain private trucking fleets for the purpose of pick up and delivery of goods for customer convenience, the intra-fleet is actually much larger than shown. The extent of

private trucking is not fully known as there is no regulatory agency which maintains records of these; however, from discussions with personnel of the Public Utilities Board, it is suspected that it is extensive.

With the evolution of the industry, has come some measure of maturity and at least some of the problems identified in the Trans Newfoundland Corridor Transportation Study, e.g., the degree of interlining has increased dramatically over that of 1974 thus indicating a better degree of co-operation between truckers. Indeed the trucking industry has gained widespread acceptance throughout the whole Province.

2. Adequacy of Service

The growth of trucking as a mode for interprovincial goods movement has been far in excess of the annual growth of total freight moving into and out of the Province. This would indicate that, compared with other modes, truck is offering a service which meets the needs of the user better than the other modes. A survey of user opinion carried out by representatives of the Commission indicated that most users were satisfied with the truck service being offered. The characteristics most frequently identified with favour were:

- 1) efficiency
- 2) door to door deliveries
- 3) reduced handling leading to reduced loss and damage
- 4) good transit times

Although there is a good deal of acceptance of the trucking industry, the industry is far from being without fault. Poor frequency and lack of regular scheduled service to the less populated areas of the Province are two of the frequently mentioned complaints. While service in the corridor is generally good for full truck load shipments, less than truck load lots and all off-corridor service leave room for improvement.

The main problems with interprovincial shipments, particularly for less than truck load shipments, are the poor roads leading to many of these communities as well as the high costs incurred in trying to service these. Many of the smaller local firms which service the intra-provincial trade have, for the purposes of business security, committed virtually all of their capacity to servicing one or two firms in a particular community. Others wishing to obtain trucking service can do so only when excess space is available. Since the trucking companies involved are generally small with perhaps only one moderate sized truck each, the servicing of regular customers is the only way the operator can obtain any measure of business security. Failing to provide this service could seriously jeopardize his whole existence.

The problem is further aggravated because there are virtually no central warehouses to which a potential customer might send small shipments for delivery to final destination. This constrains the degree of interlining which might otherwise take place and also prevents many truckers from obtaining access to consolidated loads. If central warehouses were available, shippers could be better serviced and the larger trucking firms could avoid unnecessary costs through effective interlining and the smaller trucking companies could have access to larger payloads which, in turn, would give rise to industry stability.

The interprovincial part of the industry, although showing signs of more stability than the intra-provincial division, in that larger companies with larger equipment inventory generally operate between the provinces, has one aspect which is disturbing and potentially dangerous. Of the 140 companies licensed by the Public Utilities Board to operate interprovincially, *none* has chosen to operate under a scheduled license service. Although many of these companies do, in fact, offer a regularly scheduled service, it is done as matter of choice by the trucking company and not as a condition of license. Since this is the case, and since a large majority of these are out of the Province companies, any change in the company's operation at the mainland office could result in a drastic change in the operation in Newfoundland. The company concerned would still be operating within the terms and conditions of its license. As a result, while there may be a considerable degree of confidence expressed by some users of the trucking industry with respect to schedules and a continuity of service, the possibility does exist for considerable instability. As an analogous situation, one might imagine the chaos which would be experienced if the major airlines operated on a load-and-go basis rather than on predetermined schedules.

3. Industry Growth

Since 1974, the rate of growth in the interprovincial trucking industry has been phenomenal. There are indications now that the prospects for long-haul truck movements are not quite as good as previous years primarily because of the high cost of fuel. However, the industry in this Province has essentially captured the carriage of certain commodities, such as refrigerated cargo. In view of the relatively high portion of back-haul commodities available to the trucking industry, it will be unlikely that the industry will be easily displaced from those commodities.

One of the major contributions of the whole trucking industry in recent years has been as a service to the operation and development of the fishing industry. The use of trucks for pick-up of product from point of landing for delivery to final processing sites has become universally accepted for both the salt and fresh fish industries. Since many of the landing points

are located in areas remote from the primary highway system, the problems of truck service are considerably heightened by lack of a good all weather road system. The restrictions placed on the trucking companies by equipment limitations, e.g., on some roads it is virtually impossible to operate tractor trailers, and load limits add significantly to the cost of the finished product.

As far as export is concerned, the trucking industry now carries a vast majority of fish products from this Province (estimated to be 136,000 tons in 1976)—all in temperature controlled vehicles. Except for the peak catching season when the demand for refrigerated trucks exceeds the supply, the trucking industry appears to meet the specifications and wishes of the fishing industry better than any other mode and a measure of mutual satisfaction is evident. There is even some evidence that if there were major changes in the interprovincial trucking services which saw a reduction in reefer capacity, severe damage to the fishing industry would result. Of prime concern in this regard are: 1) the condition of the highways which plays a vital role in the areas serviced, 2) the allowable payloads and hence the transport cost of the finished product and 3) the possibility of disruption of service on the Gulf due to labour problems. It appears that the fishing industry is highly sensitive to transportation cost changes; and if any of the above should result, the whole industry would be adversely affected by Gulf problems and since the capacity and marketing management is not now in place in the marine mode, no other surface mode is in a position to step in should trucking problems arise. Air service, while holding much promise for the future, is not fully developed for large scale fish export and is at present too costly to be of immediate value.

4. Effect of Highway Conditions and Regulations

Until the present, there has been a considerable difference in allowable gross vehicle loads and axle weights permitted on our highways and those of other provinces. In nearly all cases, lower limits are applicable in this Province. This has prevented truckers from utilizing maximum capacity of their vehicle which, in turn, has contributed to higher costs on the Newfoundland operation. With the completion of the proposed upgrading program of the Trans Canada Highway, this situation is due to change as, by mutual agreement, there will be uniform load limits in existence in all of the Atlantic Provinces.

A major concern expressed by the truckers, in addition to the above, was the variance between weights carried as determined by scales in different parts of the Province. Truckers claim they can load up and be weighed at origin and be within the legal limit, but usually one of the remaining scales will consistently show the loads to be in excess of those allowable. This makes the trucker overly cautious and

often, to be sure that he will comply with the regulations, he will not take the maximum load. Within the trucking industry, there is a strong feeling that the regulations are not being properly applied. Claims such as these are difficult to resolve. In discussions with personnel of the Department of Transportation and Communications it was learned that the scales are calibrated and checked on a routine basis so that there is very little room for error. Personal judgments of the weighscale staff might account for discrepancies.

5. Costs and Freight Rates

The intra-provincial trucking business is largely privately owned with the owners as operators or hired personnel acting as drivers. On the interprovincial scene, however, the trend has been towards broker drivers, that is drivers who own the truck portion of a tractor trailer combination and who deliver the trailer and contents for a contract price, usually on a per mile rate basis.

The general absence of organized unions in the trucking industry, with the accompanying lower labour costs, has served to keep the operating costs of most trucking firms in the Atlantic area well below that of central Canada, although this is not the only reason for the cost differentials. Comparative figures for the carriage of dry freight can be seen in Table 5-11.

Table 5-11 Truck Operating Costs*—1976

| Type of Truck | Ontario | Cost per Truck Mile (¢) | | Nfld. |
|-------------------------------|---------|-------------------------|-----------|-------|
| | | Quebec | Maritimes | |
| 2 Axle (Sample—15,000 miles) | 195.7 | 176.1 | 129.1 | 130.5 |
| 5 Axle (Sample—150,000 miles) | 109.2 | 109.7 | 89.4 | 90.8 |

* Transport Canada, *Operating Costs of Trucks in Canada, 1976*

In spite of the lower operating costs, there is widespread opinion among the users of the trucking industry within the Province that the rates being charged are excessive. Spot checks of tariffs of the rail, sea and truck modes carried out by the Commission staff indicate that for most items, while truck had the highest rates for the long distance journeys, on shorter distances the truck was the more competitive. The rank order rating of quoted rates for some commodities being moved between mainland origins and Newfoundland destinations can be seen in Table 5-12.

The prime determinants of the rate structure in this Province are, however, not as much the costs of operation as the existence of competition and the availability of back-haul traffic.

For the more populated centres of the Province, competition for intra-provincial traffic is good and is reflected in the rate structure. For the remote areas, in addition to lack of competition, maintenance costs

are usually high and as a result, rates are generally high. On interprovincial traffic there is still an imbalance between incoming and outgoing freight though less for truck than other modes. As a result, inbound rates have to be set to cover the costs of hauling empty returns. The main beneficiary of this rate structure has been the fishing industry which has been able to capitalize on what would ordinarily be the return of empty trucks. At the same time, the ability to recapture some of its costs through back-haul has enabled the trucking industry to maintain rates which, although for some commodities are high, are somewhat realistic. The absence of back-haul would undoubtedly price trucking, if not out of the market, to such a level that only the highest valued products could be justifiably transported by this mode.

The extension of the freight rate subsidy by the Atlantic Region Freight Assistance Act (ARFAA) to trucking has been, where applicable, a very valuable aid in making trucking more competitive with rail. Since the subsidies apply only to public carriers and not to private ones, there has been some pressure placed on the private carriers to go public in order to qualify for subsidy. The proposed changes in the whole subsidy program, while providing more competition to the trucking industry, are not likely to have any major adverse affect on the trucking position. Rail will be largely unaffected.

6. Impact of Industry Composition

The trucking industry, which in this Province was slow to develop, is a highly regulated but very loosely knit industry. Competition between carriers, while growing rapidly, is not nearly as fierce as that in other provinces, and it is relatively easy for a trucking firm to obtain a license to operate within the Province. The rather amorphous structure of the industry has some major impacts, some of which have already been mentioned. Firstly, since all companies operate independently, interlining of freight is a problem. This is of particular concern to communities remote from the Trans Canada Highway corridor and without rail or coastal boat connection. Secondly, there is no formal method whereby industry-wide planning can be accomplished. For instance, industry-wide statistics are not maintained, and unless a particular trucking firm of its own initiative elects to build central warehousing, it will be difficult for any other body to do so and have it operate effectively. Thirdly, although there have been some attempts at uniform rate setting through the Atlantic Provinces Tariff Bureau, currently there is no formal mechanism within the industry to permit rate review. As a result, it is possible to have widely varying rates throughout the Province. Fourthly, the industry is not uniform throughout the Province from a service standpoint. In areas where business is good, service is relatively good. In areas

Table 5-12 Rank Order of Tariff Rates (Low to High) O-D Pairs

| Montreal | | | | | Moncton | | | | Port aux Basques | | | |
|--------------|------------|--------------|------------|-------------|------------|--------------|------------|-------------|------------------|--------------|------------|-------------|
| Lumber | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony |
| Rail | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | same | 1 |
| Water | 1 | 1 | 2 | 2 | | | | | | | | |
| Truck | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | same | 2 |
| Furniture | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony |
| Rail | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Water | 1 | 1 | 2 | 1 | | | | | | | | |
| Truck | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| Bakery Goods | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony |
| Rail | 2 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Water | 1 | 1 | 1 | 1 | | | | | | | | |
| Truck | 3 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Potato Chips | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony | St. John's | Corner Brook | Lewisporte | St. Anthony |
| Rail | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| Water | 3 | 3 | 3 | 3 | | | | | | | | |
| Truck | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |

where volumes are low, service is often poor. There is, at present, no organization which attempts to ensure that a reasonable quality of service is available. The Public Utilities Board attempts to enforce the regulations for which it is responsible, but it is clear that there are no formal regulations which would ensure good service. For instance, the Public Utilities Board cannot ensure that all the interprovincial carriers which now have licenses for unscheduled services, operate scheduled services, and while enforcement of the existing regulations by the Public Utilities Board helps, it is through the good graces of the trucking firms that this Province has scheduled services.

Assessment of Trans Island Bus Service

1. General Standard of Service

The conclusions made regarding the quality of service offered by the CN Roadcruiser Service depend on whether the standards for comparison are typical

intercity buses, as operated elsewhere, or transcontinental trains, as operated in other provinces of Canada. The Commission feels that inasmuch as the Roadcruiser is serving as a substitute for the rail passenger service, any comparison of the service should be made with a train operation rather than with a typical intercity bus operation.

The typical items to consider when evaluating any service of this nature are:

- 1) Schedules and frequency of service
- 2) On-time performance
- 3) Fare structure
- 4) Comfort
- 5) Courtesy and efficiency of staff

a) Schedules and Frequency of Service

A detailed evaluation of the service, completed as part of the Trans Newfoundland Corridor Transporta-

tion Study (1974), concluded that there were significant deficiencies in both the routes served and the scheduling and frequency of services. It was demonstrated in the study that the schedules and routes centered around the ferry operation at Port aux Basques. The express service offered at that time was geared primarily to transport passengers from St. John's, Gander, Clarendville, Grand Falls and Corner Brook to Port aux Basques in time to make ferry connections. An analysis of travel habits, however, revealed that most demands were for trips centered around three separate corridors—eastern, including St. John's to Clarendville; central, including Grand Falls to Gander; and western, from Deer Lake to Port aux Basques. Since 1974, the schedules have been changed with the daily express runs eliminated and more frequent service provided to communities along the corridor.

An opinion survey completed by the Commission indicated that there is moderate approval of the existing routes and frequency of service, although 11.4% of those polled indicated that existing frequencies were poor.

b) On-Time Performance

One of the most aggravating aspects of any passenger service, as far as the users are concerned, is missed connections and excessive waiting times imposed due to poor on-time performances of equipment. The 1974 study showed that 25% of all departure times and 67% of all arrival times of CN buses were unacceptable. (Acceptable being defined as being within 15 minutes of schedule time.) Information presented to the Commission concerning 1976-77 schedules indicate that there has been some improvement in this area. There was a period last year, however, after legal speed limits were reduced from 60 mph to 90 km/h, when CN found it very difficult to meet published schedules. New schedules in line with the new operating speed has now overcome this.

c) Fare Structure

The Roadcruiser service in this Province, unlike most rail passenger service in Canada, is not directly subsidized by the Federal Government. As such, the CN Railway picks up the deficit, which in 1976 amounted to \$1,479,900 (excluding pass passengers). The service then finds itself in a unique but by no means enviable position, whereby it is supposed to be a rail substitute but yet is not eligible for rail subsidies. There is, therefore, obvious pressure to minimize costs which is usually done at the expense of service, and at the same time, effort to extract a fare as high as possible from the user.

In 1976, the total cost of running the Roadcruiser service was \$3,355,800 of which \$560,900 was

attributed to carrying pass passengers free of charge. The revenues generated amounted to \$1,315,000 which resulted in a loss of \$2,040,800. The loss attributable to revenue passengers was \$1,479,900. Through a new fare tariff essentially amounting to a 15% fare increase, this deficit was expected to be reduced to \$1,036,200 for 1977.

It should be noted that a major factor contributing to this deficit is the high cost of maintaining the buses. In 1977, the maintenance costs per vehicle mile were 42.5¢, down from the 51.7¢ figure recorded in 1976. Roadcruiser officials indicated that the latter figure reflects significant overhaul of the buses used in the operation. For comparison purposes, information from Statistics Canada shows that in 1974, the average maintenance and garage costs for 19 establishments across Canada was 18.0¢ per vehicle mile. More recent figures for MacKenzie Bus Lines of Bridgewater, Nova Scotia indicate that 1975 maintenance of buses and equipment costs were 25.3¢ per vehicle mile, increasing to 28.5¢ per vehicle mile in 1976.

Several factors could account for the higher maintenance costs, but the major reasons are:

- (i) The equipment is now nearing the end of its useful life with the newest buses four years old and the oldest, ten. (The economic life of most buses is considered to be eight.)
- (ii) It was anticipated that higher maintenance costs would be experienced because of the nature of these buses.
- (iii) The poor state of certain sections of the Trans Canada Highway.

Compared with other intercity bus services, the CN fare structure has always been low. The new tariff will now bring the fares more in line, certainly with the major bus lines operating in the other Maritime Provinces. However, inasmuch as the Roadcruiser service is a train replacement in Newfoundland, comparisons should be made with train costs and revenues rather than purely bus services.

Table 5-13 gives financial and traffic information for train lines in other Maritime Provinces which have come under abandonment review and for which a subsidy is now paid under Section 260 and 261 of The Railway Act. The Roadcruiser service is the most economically efficient of the five depicted. It is ironic that all of the above rail services have been judged essential and as such, 80% of the approved loss is met by subsidy from Canadian Transport Commission. Since the Roadcruiser is the only trans-island public passenger service available (other than air), it is reasonable to assume that it, too, is essential. If the same fiscal concessions were to apply to the bus, CN would then be able to provide far superior buses with passenger comfort in mind, a greatly improved en

Table 5-13 Cost/Revenues Comparison for Rail Passenger Services in the Maritimes and CN Bus in Newfoundland

| Service | 1976 Loss | Cost Per Pass. Mile | Rev. Per Pass. Mile | Loss Per Pass. Mile |
|-------------------------|--------------|------------------------|------------------------|------------------------|
| | \$ | ¢ | ¢ | ¢ |
| Montreal/Sydney/Halifax | 29,504,150 | 20.46 | 5.94 | 14.52 |
| Sydney/Truro/Halifax | 1,570,399 | 25.71 | 5.20 | 20.50 |
| Moncton/Saint John | 1,427,960 | 35.87 | 5.57 | 30.31 |
| Montreal/Saint John | 3,617,160 | 46.40 | 8.75 | 37.65 |
| CN Roadcruiser | 1,479,900 | 7.6 | 3.4 | 4.2 |

route service, and at the same time, there would not be any noticeable increase in fares.

d) *Comfort*

The Prevost bus, which accounts for 21 of the present fleet of 22 buses, is far from being a suitable piece of equipment for an intercity bus service, let alone a substitute for a modern train. This type of bus is generally used by suburban type bus operators for journeys of 20-30 miles. Indeed, the Commission could not find any intercity bus service in Canada which has a fleet comprised of this type of bus and was unable to find a satisfactory explanation as to why these buses were selected for the Newfoundland service. This type of equipment, while somewhat attractive and lower in price than most other Canadian-made coaches, does not possess the comfort features necessary for long distance travel, does not have suitable heating/air conditioning equipment, and the lavatories are not conducive to long haul operations.

For the long trip market and as a substitute for a modern train service, the present bus system is grossly deficient. From a comfort standpoint, the cramped seating on the present bus, for journeys over 200 miles, makes for a high measure of discomfort (50% of trips 150 miles). For journeys of 560 miles, as in the case of passengers moving from St. John's to Port aux Basques, the trip is almost unbearable.

e) *Courtesy and Efficiency of Staff*

It was the widespread opinion of the users, who responded to the opinion survey, that the staff were courteous and helpful at all times. In fact, only 6.2% of those questioned responded with a negative comment in this regard.

It should be noted also that the Roadcruiser service has an excellent safety record when one considers these buses are logging almost 2 million miles per year.

The company and staff should, therefore, be complimented for their performance in these two areas.

2. *Passenger Volumes*

Since the Roadcruiser service was inaugurated, the annual number of passengers has increased from

168,739 in 1969, to 240,734 in 1976. Approximately 20% of these passengers are passholders.

An analysis of traffic statistics for two months (July and November, 1976) showed the distance travelled by most passengers was less than 300 miles with the percentage travelling over 300 miles very small (21% July, 13% November).

3. *Express Packages*

The Commission noted that the revenues derived from express packages were extremely low, whereas many intercity bus companies derive a major share of their revenue from this source. One of the stated reasons for this is that luggage and package space on the buses is very small, which leaves very little room for anything except passenger associated packages. This, of course, illustrates the unsuitability of the buses.

4. *Co-ordination With Off-Corridor Services*

As already noted, the CN Roadcruiser schedules are centered on making connections with the Gulf ferries at Port aux Basques. As a result, little if any effort is made to co-ordinate with the other twelve privately operated bus services in the Province. Indeed, there appears to be little effort to co-ordinate with any other carrier or mode. For instance, the CN bus from Deer Lake to Port aux Basques departs Deer Lake five minutes before the arrival of the EPA flight.

Part of the problem in lack of carrier co-ordination may stem from the split jurisdiction for the bus services in Newfoundland, with the privately owned buses accountable to the Public Utilities Board while CN is under the guidance of the Canadian Transport Commission (CTC). Co-ordination of schedules would be made simpler if all answered to the same agency. Whatever the reason, Newfoundland is perhaps the only province in Canada where a potential traveller cannot obtain, from a common depot, information as to fares and schedules on all carriers in the Province and indeed, the rest of the country. In the absence of any formal structure to establish this, CN, the largest bus operation, and one which is certainly not new to the passenger business, should have assumed the role.

Table 5-14 Evaluation of CN Bus Stations

| Location | Station | Facilities Available | | | | | | Facility Rating |
|--------------------|----------------------------|----------------------|--------------|----------|---------------|------------|---------|-----------------|
| | | Tickets | Waiting Room | Washroom | Confectionary | Restaurant | Parking | |
| St. John's | CN Terminal | X | X | X | — | — | X | 2 |
| Holyrood Jct. | Blue Fin | X | X | X | X | X | X | 1 |
| Whitbourne Jct. | Moorland Motel | X | X | X | X | X | X | 1 |
| Arnold's Cove Jct. | Tanker Inn | X | X | X | X | X | X | 1 |
| Come By Chance | Gilbert's Store | X | — | — | X | — | — | 3 |
| Goobies | Cam Services | X | X | X | X | X | X | 1 |
| Clarenville | Holiday Inn | X | X | X | X | X | X | 1 |
| Port Blandford | Blackmore Restaurant | X | X | X | X | X | X | 1 |
| Glovertown Jct. | Rickett's Restaurant | X | X | X | X | X | X | 1 |
| Gambo | CN Rail Station | X | X | X | — | — | X | 2 |
| Gander | Air Terminal | X | X | X | X | X | X | 1 |
| Glenwood | CN Rail Station | X | X | X | — | — | X | 2 |
| Lewisporte Jct. | Traveller's Comfort | X | X | X | X | X | X | 1 |
| Norris Arm | White's Store (F) | — | — | — | — | X | — | 3 |
| Bishops Falls | CN Rail Station | X | X | X | — | — | X | 2 |
| Grand Falls | CN Rail Station | X | X | X | — | — | X | 2 |
| Badger | CN Rail Station | X | X | X | — | — | X | 2 |
| South Brook | Irving Station (F) | X | — | X | X | — | X | 2 |
| Springdale Jct. | Butt's Esso Stn. | X | — | X | X | — | X | 2 |
| Baie Verte Jct. | Gene's Irving Stn. | X | X | X | X | X | X | 1 |
| Hampden Jct. | On The Road (F) | — | — | — | — | — | — | 3 |
| Deer Lake | CN Rail Station | X | X | X | — | — | X | 2 |
| Pasadena | Valley Variety Groc. (F) | X | — | X | X | — | X | 2 |
| Corner Brook | CN Roadcruiser Depot | X | X | X | X | X | X | 1 |
| Stephenville Xing | CN Rail Station | X | X | X | — | — | X | 2 |
| Stephenville | Air Terminal | X | X | X | X | X | X | 1 |
| St. George's | CN Rail Station | X | X | X | — | — | X | 2 |
| Flat Bay Jct. | Golden Eagle (F) | — | — | X | X | X | X | 2 |
| Robinson's Jct. | Gillam's Esso | X | X | X | X | X | X | 2 |
| St. Fintan's | CN Rail Station | X | X | X | — | — | X | 2 |
| | Chaffey's Service Stn. (F) | — | — | — | — | — | X | 3 |
| South Branch | On the Road (F) | — | — | — | — | — | X | 3 |
| Doyles | CN Rail Station | X | X | X | — | — | X | 2 |
| Port aux Basques | CN Rail Station | X | X | X | — | — | X | 2 |

(F) Flag Stop
X Facility

Facility Rating — 1 Adequate facilities
2 Fair facilities
3 Inadequate facilities

5. Depot/Stations

The depots and station stops used by the CN Roadcruiser fleet are similar to those found on most other intercity bus services in Canada. The abandoned railroad buildings, service stations, motel/hotels, and highway flag stops used are typical. The service provided at these vary from just a convenience drop-off point to full range with ticket sales and restaurant facilities. Table 5-14 gives a detailed description of all stops and indicates the major deficiencies.

While many of the former CN rail stations offer a measure of convenience in that they are located in, or close to, the communities served, the buildings are small, old and dingy. Certainly not what one would associate with a modern passenger service and in no way approaching what one finds at air terminal buildings.

The highway flag stops, while they provide some convenience to travellers, who would otherwise have to travel long distances to the permanent depots, are

not a satisfactory substitute for such buildings. Although CN now has issued orders to its drivers not to leave patrons unattended at these points, this does not obviate the need for depots. Of particular concern is the stop at the junction of the Hampden Highway and the Trans Canada Highway.

6. Private Bus and Taxi Service

Service off the corridor to various areas within Newfoundland is provided by twelve private bus companies, which in most cases operate a daily return service. In addition, several taxi operators provide transportation services, primarily from the smaller coastal communities to the larger centres of a specific region.

The private bus companies have to be licensed by the Public Utilities Board, whose main consideration in granting a license is frequency of service, fares and capacity of equipment rather than standard of service. Consequently, one will find a great variation in the standards of service provided by the different bus companies.

7. Conclusion

The CN Roadcruiser Service is being operated with old, unsuitable, totally inadequate equipment. The bus is satisfactory for short distance travel, but for long trips is unacceptable as a replacement for the train. From a level of service standpoint and in light of the concessions made to train travel in other provinces, CN fares are, far above what is reasonable. The Commission does not suggest that the cost incurred by the operators should be recovered from other company funds, rather, if substantial funds are required to meet operating costs, they should come from the same source as those for other train passenger services in Canada.

The depots and station stops of the Roadcruiser are inadequate and major changes are required to make the buildings more attractive, as well as to offer a full range of services.

Co-ordination with other ground passenger services is essential. In the absence of a government agency to ensure this, responsibility for it should be made part of CN's license to operate.

Assessment of Gulf Ferry Operation

1. Adequacy of Equipment—Vessels

Although there are two different types of vessels being operated on the Gulf; the passenger/truck type and the rail/truck type, there are three distinct services performed. These are 1) the carriage of passengers and passenger related vehicles, 2) the carriage of commercial trucks, and 3) the carriage of rail cars. These ferries provide the major Island surface link with the mainland and may be viewed, at least from a functional standpoint, as continuations of the Trans Canada Highway and the CN main rail line. Indeed, as far as the railway is concerned, the Terms of Union between this Province and the rest of Canada stipulate that the Gulf be considered as part of the railway. The users, however, particularly those associated with highway travel look upon the ferry service as something more. Since the distance traversed is slightly more than one hundred miles, and quite time consuming, the crossing of the Gulf is often looked upon as a mini-cruise wherein the full range of en route services is expected. The adequacy of equipment is then judged by the users on the basis of the ability to supply these services rather than on the ability to meet the pure transport function.

From an economic viewpoint the use of roll on/roll off (ro/ro) vessels for a trip of the length experienced on the Gulf is not a particularly rewarding venture. Usually ro/ro vessels perform well on short trips where large volumes can be moved between two points in the shortest time span. On long trips costs are usually much higher than those which could reasonably be recovered through fares. Regardless of the economics, if the ferries are to function as high-

way and railway substitutes, provision must be made for the carriage of these vehicles. From a physical feasibility viewpoint then, ro/ro equipment appears to be well suited to the job.

The first modern vessel used on the Gulf to serve ro/ro functions was the '*M.V. William Carson*'. While this was a market improvement over previous equipment, the ability to accommodate large trucks was restricted and there was no provision for rail car accommodation. These two problems have since been overcome with the use of stern-loading ferries which can accommodate the full range both of highway vehicles and rail cars, with perhaps the only exception being the tri-level rail carrier which is in normal use on most mainland rail lines, but cannot be carried on the North Sydney-Port aux Basques rail car ferries.

Although the vessels are intended to serve the function of a land connection between Nova Scotia and Newfoundland, because of safety reasons, passengers are not permitted inside the vehicle during the sea voyage in the same manner that passengers are carried on land. These vessels then, of necessity, must have incorporated into them, provisions for passenger accommodations commensurate with a trip of that duration. As vessels used for daytime crossings, the passenger accommodations provided by the current fleet appear adequate. Certainly there is every indication that with present auto occupancy ratios, and even under the most severe demand, the vessels will reach maximum vehicular capacity before reaching maximum passenger seating capacity. This means that, under normal circumstances, all travelling passengers will be able to find seats on the vessels. As vessels used for night time journeys, however, the present fleet, and particularly the Nautica type vessels, are grossly inadequate. Table 5-15 shows the sleeping and seating capacities of the vessels available for use on the Gulf in 1977. Except for the '*Ambrose Shea*' and the '*Marine Cruiser*', the other vessels have only token sleeping capacities, a situation which should preclude them from night service.

Table 5-15 North Sydney to Port aux Basques/Argentia Service—Passenger Sleeping and Seating Capacity

| Vessel Name | Capacity | |
|------------------------------|----------|---------|
| | Sleeping | Seating |
| <i>M.V. Ambrose Shea</i> | 260 | 405 |
| <i>M.V. Marine Cruiser</i> | 154 | 344 |
| <i>M.V. Marine Atlantica</i> | 68-88* | 820 |
| <i>M.V. Marine Nautica</i> | 68-88* | 820 |
| <i>M.V. Stena Nordica</i> | 88 | 712 |

* sleeping capacity in the summer
SOURCE: CN Marine, Moncton

Since the '*Shea*' and '*Cruiser*' are normally used on the Argentia service, and thus not fully available

for the Gulf, there is very little suitable equipment available for night journeys on the Gulf. On the other hand, the highest demand for travel during the peak season, June to September, is for night journeys. Since CN accepts passengers for night crossings in numbers far in excess of the available number of berths, passengers attempt to find makeshift accommodations on tables, benches, floors and any other place where a person can lie down. This, of course, is most uncomfortable and leads to considerable dissatisfaction with the service.

Of course, since the vessels are entirely unsuitable for night journeys, CN could be somewhat justified in not offering that service, or at least offering a service for only the number of passengers which might be accommodated in berths. However, since the journey time is so long (approaching 7 hours) the ability to travel at night on the vessel and to start the land journey in the early morning, minimizes lost time to travellers and is thus a characteristic which appeals to a large number of people, particularly truck drivers. This explains the reason for the high demand for night journeys.

The major problem associated with vessel adequacy lies not so much with the suitability of the vessels for use on the service as with the number of vessels and the available capacity to meet the travel demands placed upon them. Rail car traffic has been steadily declining since 1974 and as a result there is adequate capacity in the present fleet, although the removal of the *'Sir Robert Bond'* could, at certain times, place some strain on the remaining ferry if rail traffic in 1978 maintains its 1977 level. Truck traffic, on the other hand, has been steadily increasing and is likely to continue to do so. The ability of the present fleet to handle truck traffic is sufficient for approximately nine months of the year, but during the peak tourist season long waiting times are experienced by truckers.

The demand for passenger space and passenger related vehicle space is seasonal with a very low volume of travel during the late fall, winter, and early spring seasons but a very pronounced peak during the summer period. During peak period in 1976, CN estimates that the Port aux Basques/North Sydney service operated at 80 per cent capacity while the Argientia service operated at 85 per cent capacity. There is some question as to what capacity figure was being used in these estimates, i.e., car deck capacity or passenger seating capacity. An analysis done by the Commission on the traffic situation, as taken from the ships' sailing reports indicates that during July and August, 1976, while for some sailings there was some excess space available, the service, in general, was operating at maximum car deck capacity. The full impact of this kind of situation is difficult to assess; however, it generally means excessive waiting time for

some travellers. This is a prime area of discontent with truckers as they feel they receive low priority when space is being sold, and as a result have to incur extraordinarily long waiting times. (This problem is explored in a later section of this report.) However, with the accelerated turnaround time (except for the truck problem), statistics indicate sufficient capacity to meet present demands. If the forecast growth is realized, more capacity will be required by 1980.

2. Adequacy of Terminals

In recent years, there have been some serious terminal deficiencies with respect to capacity to handle vessels, to transfer rail freight and to provide passenger services at Port aux Basques. Although the reduction in rail traffic has served to minimize these, many problems associated with both passenger and vehicles still remain and are likely to continue until the present expansion and upgrading programmes are complete.

The lack of docking space for the stern-loading ferries and inadequate parking facilities for passengers' cars and trucks have served to constrain efficient operation. The construction program underway will help to alleviate this.

The Commission notes, however, the rather deplorable state of the passenger waiting facilities, particularly at Port aux Basques. The dull, dreary, somewhat dirty building, with outdated food facilities does very little to enhance the journeys taken from this terminal. Even at North Sydney where the building is relatively new, it is noted that it is small with only minimal food and other services. In light of the fact that during the peak period of the year in excess of one thousand people, per day, are served by these facilities, it would appear that the building, particularly with respect to the services mentioned, is totally inadequate. When it is considered that, as a rule, travellers are expected to check-in at least two hours before departure time, it is almost inconceivable in this era to think that an operating company would not provide suitable services for travellers. One can only note, with astonishment, the drastic difference between these marine passenger facilities and air terminal buildings. Although both are, in fact, provided by MOT, the former has very inadequate facilities compared with air terminals which offer a full range of services, from newsstands and magazines to bar and restaurant facilities.

A most disheartening aspect of these terminals lies in the fact that they are located at the boundary between the two provinces concerned. Visitors to this Province must surely gaze in amazement at the scene which faces them. In contrast to the Nova Scotia-New Brunswick border which is beautifully landscaped and in highly pleasant surroundings, the Newfoundland-

Nova Scotia gateway appears to be more like a prison.

3. Costs and Subsidies

The Gulf Services are the most costly element in the Newfoundland transportation system and since the revenues generated account for only a small portion of the total costs, large subsidies are required from the Ministry of Transport. Up until 1977, CN operated these services, using MOT-owned or leased vessels, according to schedules and fare structures established in conjunction with MOT. The difference between operating costs and the revenues collected was met by funds provided by MOT. This system is due to change shortly when the proposed contract system between MOT and CN Marine Corporation is finally agreed upon.

Since 1959, and up to 1975, there have been dramatic, if not alarming, increases in the yearly subsidy requirements of the Gulf operations. Figure 5-7 gives an indication of the rate of growth in the subsidy paid. One very important point to note is that these do not include capital costs associated with either vessels or terminals.

Figures 5-5 and 5-6 respectively indicate the volumes of carload freight and passenger related vehicles carried during the same time. It is quite clear that the situation becomes worse as the activity increases and that the carriage of rail freight has a particularly detrimental effect on subsidy requirements. Note should be taken as to the decrease in operating subsidy as rail traffic decreased for the period from 1974 to 1976. This may be explained by virtue of the fact that the terminal facilities for handling rail cars, i.e., the truck to truck and car to car operations, are included not as costs on the books of the railway, but rather on the accounts of the Gulf Services. The effect of the standard to narrow gauge transfer costs may be seen if the Nova Scotia-Newfoundland ferries are compared with the New Brunswick-Prince Edward Island ferries. Since the traffic make-up is largely the same in both cases, i.e., both services carry passengers, trucks, cars and railcars, and although the P.E.I. service carries substantially more, the only significant operation characteristic lies in the fact that because P.E.I. has a standard gauge railway and, as such, transfer facilities are not required on that service. This is then reflected in the lower terminal costs. For instance, the total terminal cost for the Gulf in 1976 amounted to \$18,981,020 whereas the total for the CN operation on P.E.I. was only \$3,172,576.

Data acquired by the Commission indicated some significant differences in the cost of moving rail cars, passenger cars, and trucks across the Gulf. These are given in Table 5-16.

Table 5-16 Unit Costs and Revenues for Traffic Carried on Gulf

| | Unit Costs Including Capital & Operations | Average Revenue | % Cost Recovery |
|------------------|---|--------------------|--------------------|
| Rail Car | \$832 | 45 | 5 |
| Auto | 82 | 18 | 22 |
| Tractor Trailers | 494 | 82 | 17 |
| Passenger | 18 | 6 | 33 |

Since the costs arrived at above have been established from an allocation process rather than an accounting process, some question might arise as to their validity. The Commission does not purport to believe the accuracy of these figures to be 100% correct. However, the Commission does, after a great deal of cross referencing, believe the rank order and order of magnitude of these figures to be correct and truly indicate that Gulf Services do in fact require an abnormal amount of expenditure of public funds.

This is not to say, however, that the service is not needed or that it should be cut back or discontinued. The Commission is not convinced that the service is run efficiently but rather believes that only through neglect on the part of both CN and MOT could the annual subsidy requirement rise to such magnitudes as experienced in recent years.

4. Service Characteristics and User Opinion

In assessing the quality and level of service provided by the Gulf vessels, it is essential that the role of these, as perceived by the general public, be identified. For the commercial trucker, the role of the ferry service is to move the highway vehicle across the Gulf as quickly as possible, without incurring long waiting times and at a fare level which is consistent with the same land distance costs. For passenger travel, which from trip statistics shows to be mainly tourist or vacation travel, the expectations include in addition to those already noted by the truckers, such enroute services as meals, sleeping, bar facilities and some entertainment. Tables 5-17 and 5-18 give a resume of the responses to the already noted opinion poll with respect to ferry services.

5. Schedules and Frequency

The Commission recognizes the most difficult task facing the operators of the Gulf Service in trying to provide a schedule and frequency of service which matches closely the transport demands. The abnormally high demand peaks during the summer season, as compared with the relative low usage during the remainder of the year, means that equipment and manpower geared to these peaks is redundant at other times.

Figure 5-5

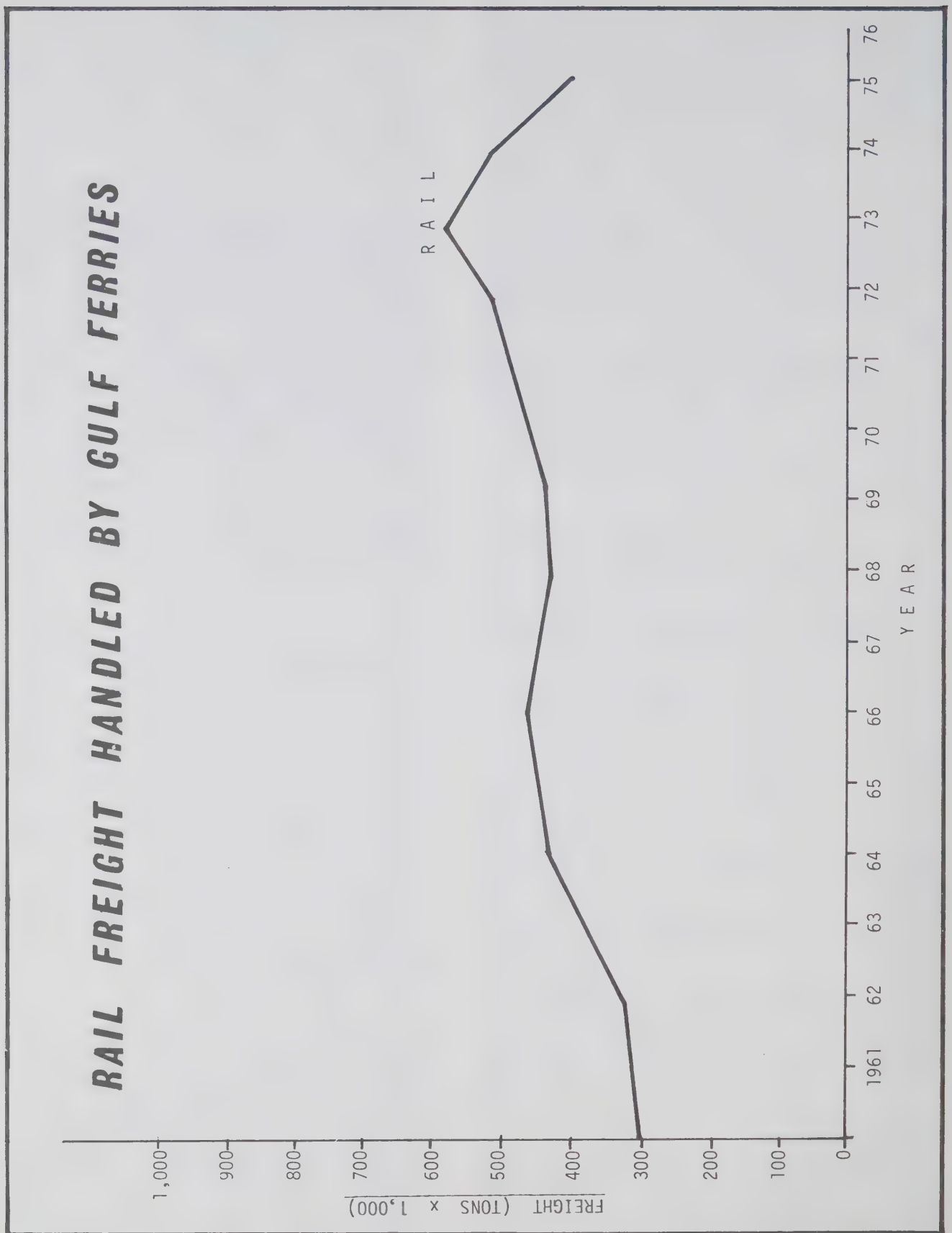


Figure 5-6

PASSENGER RELATED VEHICLES HANDLED BY GULF FERRIES

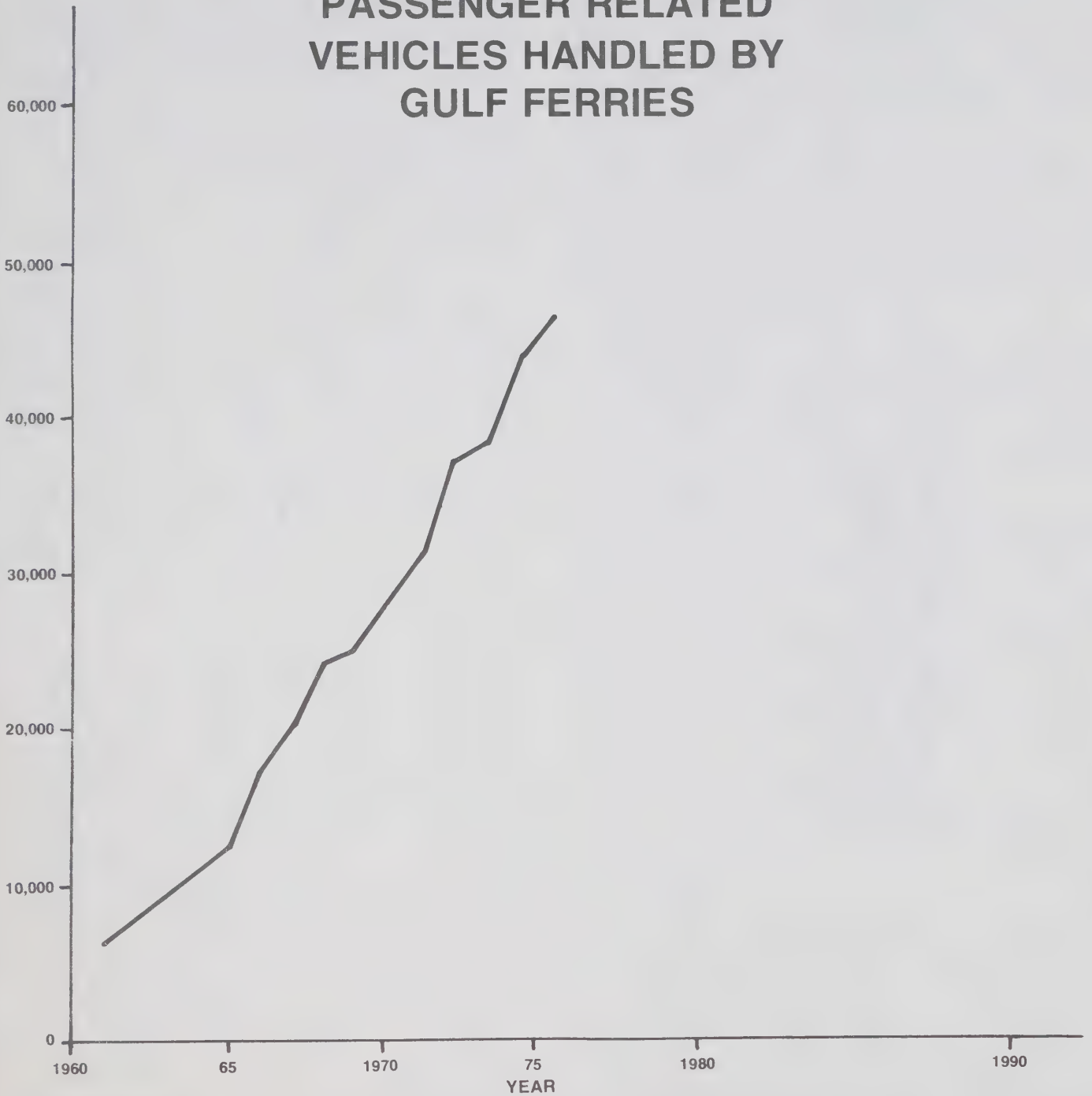


Figure 5-7

SUBSIDY REQUIREMENTS OF GULF FERRIES

SUBSIDY (\$ MILLIONS)

YEAR

1959 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76



In spite of the obvious problems, it appears that CN makes every attempt to maximize utilization of equipment during peak seasons. Fast turn-around giving more frequent sailings, and accommodation of tractor trailers on both the passenger and rail ferries are just some of these.

As far as passenger and passenger related vehicles are concerned, the major discontent lies with the number of night sailings available. For travellers moving on the Gulf, the ability to sleep during the crossing and to get off the boat the next day, prepared for a full day's drive, is not only a maximization of time utilization, but at today's rates, a very convenient hotel.

Table 5-17 Opinions of Ferry Service to Nova Scotia

| | Excellent | Good | Fair | Poor |
|-------------------------------------|-----------|------|------|------|
| | % | % | % | % |
| Comfort (n=439) | 15.3 | 41.7 | 28.9 | 14.1 |
| Efficiency of operation (n=413) | 11.6 | 55.9 | 25.9 | 6.5 |
| Number of crossings per day (n=387) | 9.0 | 58.7 | 28.4 | 3.9 |
| Reservation system (n=407) | 13.5 | 44.5 | 25.8 | 16.2 |
| Fares (n=417) | 5.3 | 27.6 | 45.3 | 21.8 |
| Waiting time (n=405) | 5.2 | 27.9 | 41.0 | 25.9 |
| Departure and arrival times (n=415) | 11.3 | 49.9 | 32.8 | 6.0 |
| Courtesy of staff (n=424) | 26.4 | 52.8 | 17.5 | 3.3 |
| Food Service (n=425) | 18.8 | 42.1 | 27.1 | 12.0 |

Table 5-18 Responses to Opinion Poll Regarding Gulf Ferry Operation
What Do You Particularly Dislike About the Ferry Service?

| Comments: | No. | % |
|---|-----|------|
| 1. Shortage of cabins—sleeping facilities cabin is terrible | 56 | 42.4 |
| 2. Fares too expensive | 19 | 14.4 |
| 3. Long waits to get on and off | 21 | 15.9 |
| 4. Overcrowded | 22 | 16.7 |
| 5. Long boring trip—nothing for children to do. Need movies, etc. | 11 | 8.3 |
| 6. Reservation service poor. Reservations should be made and tickets purchased in advance | 11 | 8.3 |
| 7. Fares for cabins too expensive | 5 | 3.8 |
| 8. Poor food services | 7 | 5.3 |
| 9. People without cabins are noisy all night | 2 | 1.5 |
| 10. Departure delays not told to passengers in time | 1 | * |
| 11. Boat arrivals and bus departures should be closer together | 2 | 1.5 |
| 12. Cabins and washrooms small and sometimes dirty | 6 | 4.5 |
| 13. No help with luggage | 2 | 1.5 |
| 14. Poor management | 1 | * |
| 15. Should use Argentia year round | 1 | * |
| 16. Staff sometimes drink on duty | 1 | * |
| 17. People who "know someone" can get cabins without reservations | 1 | * |
| 18. Shortage of staff | 2 | 1.5 |

* Less than 1%

As can be seen from Table 5-18, a shortage of sleeping facilities was judged to be the most disliked characteristic of the service.

From the truckers' viewpoint, the service is too infrequent, resulting in costly delays at either side of the Gulf. In an attempt to provide as much service as possible, to all groups concerned, while at the same time minimizing costs, CN elects to move a mixture of trucks and passenger vehicles on the passenger ferries, and trucks plus rail cars on the rail car ferries. CN looks upon this process as a very flexible one which offers the trucking industry the best possible chance of being moved across the Gulf. It is claimed by CN that preference is sometimes given to trucks over rail cars. The truckers, however, see this arrangement as one in which, at least in the peak season, there is fierce competition with other demands for space and one in which they see themselves as being losers.

There is no doubt that the trucking industry incurs long waiting times, as much as 24 hours, during the peak season. With the high level of truck activity between North Sydney and Port aux Basques, there is now some justification for at least one vessel being dedicated to handle truck traffic in the peak season.

6. Fares and Rates

With the high amount of subsidy paid in respect to the Gulf Service, it is quite clear that the fares and rates charged to the users are not cost recovering. In spite of this, there is widespread opinion that except for the rates charged to CN rail, for the movement of rail cars, the fares and rates are too high.

Until recently, the rate charged rail cars was a prorated one compared with what the rate would be if the same freight were carried the same distance overland. Compared with the truck charges of \$1.50 per foot of length of vehicle, plus a passenger fare for the driver, the rail rate was low. Adding to the disparity was the fact that rail cars returning empty did not have to pay a charge whereas trucks were charged the same amount whether they were full or not. This discriminatory policy, while not of major consequence, placed some pressure on the trucking industry as it tried to compete with rail.

As far as passenger fares and rates for accommodations and vehicles are concerned, the fairness of the charges depends on the standard by which they are measured.

As a typical marine service, the present fare levels are not extremely high, and as shown in Table 5-19, compare favourably with the Bar Harbour/Yarmouth and Yarmouth/Portland service. As a highway substitute and considering there are no discounts for families or groups, they are extremely high. For example, a family of five travelling on a day crossing without sleeping accommodations would pay \$41.00* for this one way 100 mile trip. Allowing 25¢ per vehicle mile of travel, a highway journey of the same distance would

* Typical case of vehicle plus three adult and two children fares.

Table 5-19 Fare Comparisons of CN Ferries

| Service | Distance In Miles | Passenger Fare | Auto Fare |
|------------------------------------|----------------------|-----------------------------------|---|
| Yarmouth-Bar Harbour | 96 | \$15.00/Summer 9.00/off season | \$35.00/summer (June 30-Sept. 11) 27.00/off season |
| Yarmouth-Portland | 185 | 28.50 | 50.00/summer (June 16-Sept. 11) 45.00/off season |
| New Brunswick-Prince Edward Island | 9 | .90 | 3.40 (All year) |
| Nova Scotia-Port aux Basques | 108 | 6.00 8.00/Peak weekend | 18.00 25.00/Peak weekend (July 1-August 28) |

cost \$25.00. An important point to note, however, is that while alternative services are available at places like Bar Harbour, Yarmouth, etc., the Gulf Service at Port aux Basques/North Sydney is the only service connection with the mainland, and although fare increases have been held to a minimum by MOT, they are still high compared with road costs.

7. Reservations

The public opinion survey carried out by the Commission indicates that the present reservation system meets with the approval of the general public (Table 5-17). On the other hand, there was evidence made available to the Commission, by the Provincial Department of Tourism, showing considerable problems with the reservation system. The Department estimates that 30% of those using the Gulf ferries are non-resident tourists. The anticipated growth in the tourist industry in recent years has not materialized, in the opinion of the Department, because of impediments at the Gulf, chief of which is the reservation system. It is argued, by the Department, that local people make multiple bookings on the ferries of which only one is actually used. This results in a high number of "no shows" for which space is eventually sold on a first-come-first-served situation. The new result is that because of the large number of multiple bookings, the reservation lists appear to be consistently full. Tourists are reluctant to come to the Province without confirmed reservations.

The Commission has attempted to investigate this situation and there appears to be some truth to the Department's allegations because, although a check of the reservation system revealed that the system is consistently booked, actual numbers of passengers and vehicles accommodated very rarely were equal to the vessel capacity.

8. Comfort

While comfort was considered by most people interviewed to be adequate, much concern was expressed regarding comfort on night sailings. It is a usual practice to sell space on night sailings on the same basis as day sailings even though there is a drastic shortage of both berth and day-nighter accommodation. It is also a practice not to sell

reserved space on the day-nighter. As a result, passengers usually lie down wherever they can find sufficient area, often in the most unusual places. Although the crews and staff appear most helpful, the lack of suitable sleeping accommodations is unavoidable and points out, from a comfort aspect, the unsuitability of the vessels for night crossings.

9. Communications

CN appears to have a major problem in communicating schedule changes or sailing delays to the travelling public. When vessels are delayed for various reasons it is virtually impossible to obtain from CN personnel the new sailing times. The result is that travellers are forced to wait many hours, either in cars on a parking lot, or in a totally inadequate waiting room. The attitude of CN staff seems to be, "We don't know and it's not our responsibility to find out." Surely, with ship-to-shore radio equipment forecasting technology, and the years of experience behind them that the CN Marine people have, schedules certainly can be changed, modified or reconstructed at a moment's notice and the passengers concerned notified.

In conclusion, the Gulf ferry system must be looked upon as this Province's highway and railway link with the mainland. As such, every effort should be made to emulate, as near as possible, conditions found on the land facilities. In doing this, it must be recognized that the system will never be self-supporting, but if this Province is to have the same degree of accessibility as the other provinces, improvements on the Gulf are warranted.

Assessment of Direct Water Services

1. Equipment Adequacy

At the present time, Newfoundland is served by four general cargo carriers providing direct water services between mainland and Newfoundland ports. These are:

- Newfoundland Steamships Ltd., Montreal to St. John's and Corner Brook, using side-loading vessels.
- Chimo Steamships Ltd., Montreal to St. John's (container service); Montreal to Goose Bay (conventional general cargo service).

c) Newfoundland Container Lines, Halifax to St. John's, (container service).

d) Chimo Offshore Services Ltd., which ships new automobiles and trucks from Dartmouth, Nova Scotia to St. John's.

Except for the Montreal/Goose Bay run, the others are regularly scheduled, offering weekly or bi-weekly services. The Goose Bay service is an irregular service but with a predetermined number of trips per shipping season.

In addition to the above, several bulk commodities, such as petroleum and mineral products, are moved to the Province from mainland and U.S. points by private carriers.

The common carriers involved in the movement of general cargo offer full carload or container load services, as well as less than container loads and pool car shipments.

The wide range of vessels used on these services, while suitable and adequate for the current level of traffic, does not have the capacity needed to meet the continued growth in the utilization of this mode.

In this regard, Newfoundland Steamships Limited is now in the process of attempting to acquire a larger vessel to increase its fleet capacity, while Chimo have indicated that excess capacity already in the fleet, can be diverted to the present service if required, although the company is also attempting to acquire a new ship.

The major problem associated with these services is not with the vessel's requirements, but rather with the terminal facilities particularly at St. John's.

The finger pier and transit sheds at the west end of the St. John's harbour, which are now being used by Newfoundland Steamships Limited, are being taxed to the fullest. Future expansion of these facilities is mandatory if the shipping industry is to expand. The whole area is confined and constrained by private land holdings which, unless purchased for harbour use, severely limit the range of expansion alternatives.

As far as the container lines are concerned, both are in their infancy and, as such, not carrying as much volume of traffic as Newfoundland Steamships Limited. The terminal facilities at the Harvey piers, currently being used by both, are adequate for the present operation although a large increase in business would result in storage problems at the pier.

In general, the cargo handling facilities in St. John's can be considered as being utilized to their fullest extent at the present, and expansion is urgently needed if more marine movements are to be accommodated.

With respect to Corner Brook, much the same situation applies. There are adequate capacity and handling facilities to meet the current demands. The anticipated increase in vessel capacity, due to come on stream by 1978, can be accommodated reason-

ably well with present facilities. When the service is running consistently with full loads, however, handling problems will arise. By the early 1980's additional berth space will be required.

2. Service Characteristics—Schedules and Frequency

The continued growth in the volume of freight carried by the direct water carriers shows that the service has gained a high degree of public acceptance, and relative to other modes, the service offered meets with consumer expectation.

Although there is a wide range of schedules offered by the marine carriers, varying from one trip every nine days for Chimo Container service, to the bi-weekly frequency of the Newfoundland Steamships Limited, there is general satisfaction with the schedules and frequencies offered. From interviews with users it was determined that transit time and the availability of service is not as important as the consistency of the service. It has been noted by the Commission that the marine service has built a reputation for a high degree of dependability and reliability, with the only exception being the short period of the year when schedules may be disrupted by ice conditions. It is the reliability aspect which accounts greatly for the popularity of the service.

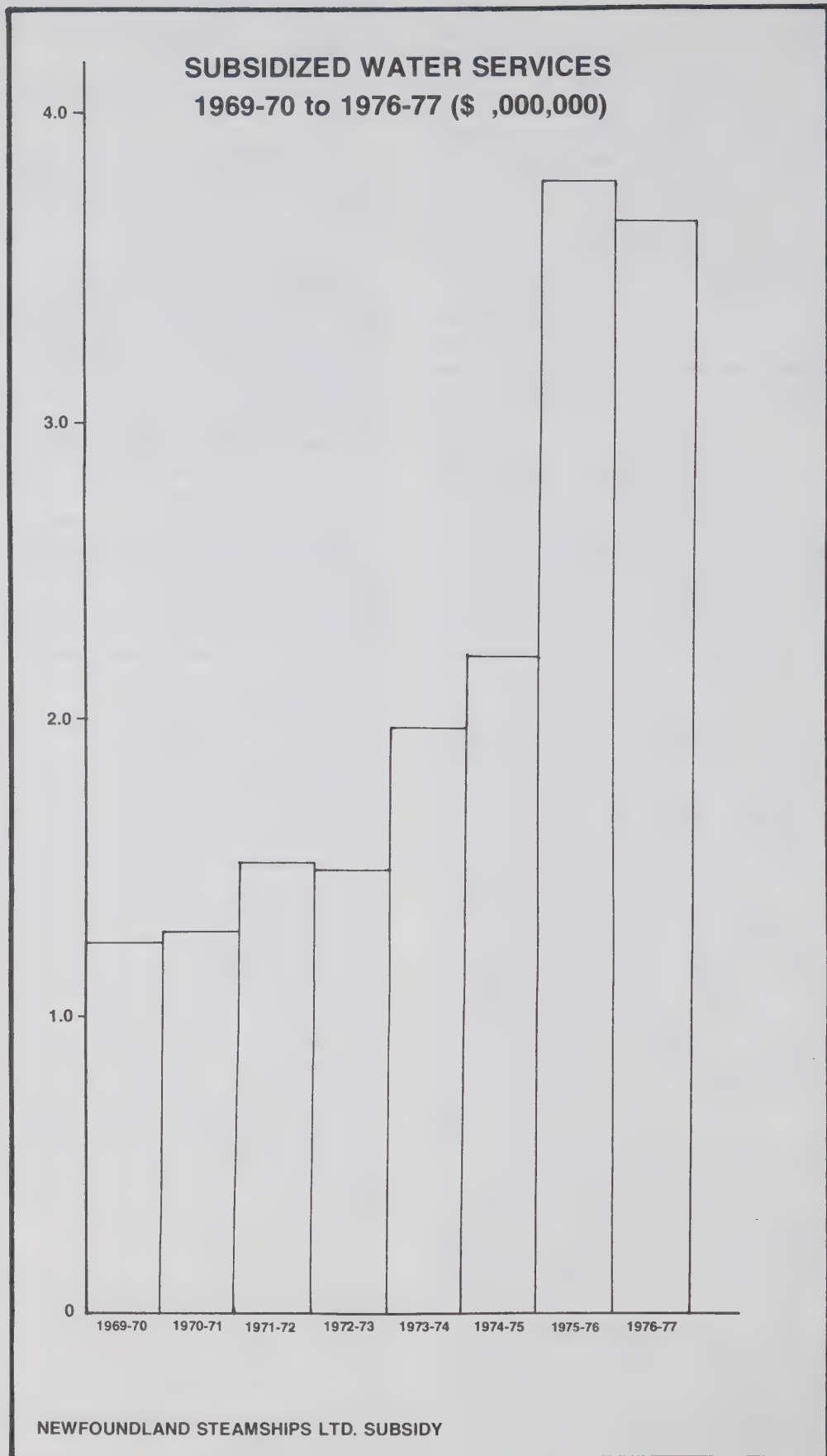
3. Loss and Damage

The history of loss and damage claims for the direct marine services shows a wide variance from virtually no claims for the Container services to an exceptionally high incidence of claims for the Newfoundland Steamships services. As far as the Container lines are concerned, the average damage claims per ton compare favourably with other modes which have limited freight handling by the carriers concerned. The Newfoundland Steamships Limited, however, are faced with claims which, at nearly \$4.00 per ton, are among the highest of any carrier in the Province. The nature of the service and the limited amount of warehouse and storage space available are prone to a high incidence of damage and loss. Improvements, either just implemented, or in the planning stage, such as more crib and palletized freight, the use of shrinkwrap and the greater use of containers, will undoubtedly reduce the extent of loss and damage.

4. Cost Characteristics

The direct water mode is the most cost efficient way of moving general cargo from mainland points to Newfoundland centres. Although the service lacks the door to door aspect of direct trucking, it adapts well with trucking to provide the same service. Even when pickup and delivery charges are considered, it is still the least costly way, in terms of total costs, to move general cargo.

Figure 5-8



At present, both Newfoundland Container Lines and Chimo Lines are unsubsidized services although Newfoundland Container Lines is not yet operating at a profit position. Newfoundland Steamships Limited, on the other hand, received, in 1976, a subsidy of \$15.64 per ton. The subsidy was necessitated in 1969 when the company pointed out to the Government of Canada that the current levels of traffic and revenue did not permit a profitable operation and the company could not go on indefinitely on a losing basis. The growth in that subsidy and the amount paid per year can be seen in Figure 5-8.

The subsidy paid to Newfoundland Steamships Limited in respect to the Newfoundland service, has, in the past, been the subject of some criticism by both the railway unions and the trucking companies. Recently, Chimo Shipping has also indicated its displeasure at having its competitor receive a subsidy which it does not. In all cases, the chief complaint is that the subsidy gives Newfoundland Steamships Limited an unfair advantage in rate setting and makes it difficult for other modes to compete. Indeed, it has been seriously questioned as to whether Newfoundland Steamships Limited really needs the subsidy at all.

If the equity of the subsidy is to be judged on the amount paid to each carrier, then with the exception of Chimo Shipping and Newfoundland Container Lines, Newfoundland Steamships Limited is the least subsidized service. Subsidies of approximately \$60.00 and \$40.00 per ton to rail and truck, respectively, for carriage on the Gulf, is far in excess of the \$15.64 per ton paid to Newfoundland Steamships Limited.

The fact that neither Chimo nor Newfoundland Container Lines at the present time receives a subsidy, has led the Commission to seriously question the need for such to Newfoundland Steamships Limited. From data supplied by MOT, it would appear that the company does, in fact, require some subsidy. The Commission notes, however, that the corporate structure, of which Newfoundland Steamships Limited is a part, is a highly detailed and complicated one, often with intercompany transactions taking place at arm's length. While an audit of the company's books by the Audit Services Bureau indicates the present subsidy is justified on the basis of present costs, there is still some doubt as to whether the full revenue potential available to the shipping company is being utilized. For instance, it has been determined that pool car rates are lower to Newfoundland than to most other places in the country and by Newfoundland Steamships Limited admission, the carload and commodity rates are generally 5% below those of CN Rail. It might logically be asked if these are made possible by virtue of the present subsidy. Current studies being carried out by MOT should indicate the level of subsidy required.

While the freight rates of Newfoundland Steamships Limited are public because of a condition of subsidy payment (see Figure 5-8), the two container lines do not have a public rate structure. From discussions with the carriers, there is indication that rates are competitive and perhaps higher than the more conventional modes. In the case of Chimo Shipping, revenues generated are claimed to be sufficient to break even, while Newfoundland Container Lines anticipates a substantial loss on its first year of operation, 1977-78.

While Chimo Shipping has been adamant in its contention that it is possible to operate the marine service without subsidy, the company has not, after repeated requests by the Commission, presented their cost figures to either the Commission or MOT to substantiate their argument. On the basis of the performance of Newfoundland Steamships Limited and Newfoundland Container Lines, it is doubtful if any shipping company could operate without subsidy in light of the competition from other modes.

One of the major problems associated with the costs of direct shipping has, in the past, been the limited back-haul available, particularly in light of the freight rate subsidies available to rail and truck, but not to marine. Changes in the MFRA and ARFAA soon to be introduced, will see the subsidy extended to the marine mode as well. This will improve the competitive position of all shipping companies. However, since the destinations for fish, the main back-haul product are in the United States, unless there is a dramatic change in operation and routes, it is unlikely that the present marine carriers could take advantage of much of the back-haul potential. The only present shipping concern which might logically pick up the transport of fish is Newfoundland Container Lines. A modification of routing could see some stop in New England to discharge fish. At present, however, there are no concrete plans for this known to the Commission.

In conclusion, the marine mode offering direct service between this Province and the mainland has a history of good performance. When combined with truck for pickup and delivery, the maximum of flexibility at the lowest possible cost is available to the Newfoundland shipper.

Assessment of Coastal Boat Operation

The coastal boat operation is one of the oldest forms of transport in the Province, having been operated by the Newfoundland Government prior to Confederation and by CN since. For various reasons, the system and services offered have resisted change and many characteristics of the service are, today, the same as they were thirty years ago. This, of course, has led to many inefficiencies. In an attempt to improve the service, but reduce the requirement for

ever increasing subsidy, the coastal boat operation will shortly come under the new Crown agency, CN Marine Corporation.

Prior to 1971, the coastal service suffered greatly from numerous operational deficiencies. A study carried out by MOT over the period 1972-74 was instrumental in identifying the major short-comings of the service, and the changes introduced by CN as a result of that study have resulted in a number of system improvements. Still, however, a large number of problems remains. It is not the intention of the Commission to review in detail those problems existing prior to the Newfoundland Coastal Transportation Study, rather, in subsequent paragraphs current deficiencies are identified and note is made where changes are likely to occur when the system comes fully under the control of CN Marine Corporation.

1. *Equipment Adequacy—Vessels*

There are two basic types of vessels used in the coastal service, (1) fast motor launches, and (2) conventional passenger/freighters. The motor launches, 'Marine Sprinter' and 'Marine Runner' are used to service the passenger demand along the south coast from Port aux Basques to Terrenceville. These vessels provide a fast daily return service to all communities in between. Because travel times are relatively short and journeys are accomplished in daylight hours, there are no sleeping accommodations on these vessels. Also, there is no provision for the carriage of freight other than normal passenger baggage and mail.

As vessels operating in a manner much the same as buses or taxis, the equipment is adequate and provides a fairly high level of service. Compared with the former, much slower conventional ships, the present vessels are far superior in meeting the passenger requirements. The only characteristic of major concern is that of passenger comfort enroute. The smaller and faster vessels have a tendency to hit hard on wave crests much the same as small pleasure craft operating on lakes. The results can be a very uncomfortable ride for the passengers, particularly if winds and waves are high.

On the other routes, CN operates small conventional vessels with both passenger and/or freight capabilities. The fleet, which is made up of both MOT-owned and locally chartered vessels, services both the freight demands of the south coast as well as the passenger and freight demands of the northeast coast.

These vessels are much slower than the 'Sprinter', and 'Runner' and serve long routes with many ports of call. This traditional type of vessel is far from adequate under today's passenger and freight demands. They are small, slow, and in many cases either lack sufficient freight capacity, or because of

design, are not suited to modern freight handling equipment.

The mixing of freight and passenger services on the same vessels, forcing passengers to incur long delays when freight is being loaded and unloaded; the lack of sufficient sleeping accommodations in light of the long distances travelled, and the time involved; the use of vessels which are not of ice-breaking class, forcing cessation of the service during the ice seasons; and the use of vessels which cannot use modern freight handling equipment, i.e., containers and pallets, which means that all freight is subject to loss and damage; are sufficient indicators of the inadequacy of these vessels.

2. *Equipment Adequacy—Wharves and Terminal Facilities*

One of the major problems facing the operators of the coastal service is the lack of compatible shore facilities to enable proper docking at the various ports of call. In some cases, these are non-existent and passengers or freight must be transferred to small boats in the harbour while the coastal vessel is at anchor. This presents a major safety problem for passengers and an opportunity for damage to freight.

In a number of communities which have wharves, there is no shed or freight protection or storage area, and freight is often left to the elements for long periods of time. Passenger depots are virtually non-existent throughout the whole area served. The ports of call along the Labrador coast are those with the worst deficiencies, as many of these are not permanent settlements but, rather, only summer living areas for fishermen. Most permanent communities have some type of wharf, although there is often a great deal of incompatibility between this and the vessel, giving rise to loading and unloading problems.

3. *Service Characteristics*

While the recommendations of the Newfoundland Coastal Transportation Study brought some very significant improvements to the service, most residents of the area, dependent upon the coastal boat for the only surface mode of transport, feel that the service is still a poor one and in need of major changes. Problems still exist with schedules, routes, delays, damage and losses, claims, and insufficient capacity to meet demand.

4. *Schedules and Routes*

The main problem associated with schedules and routes is generated by the fact that in most cases the same vessels carry both passenger and freight traffic. In addition to increasing travel time, the possibility of direct point to point service of the major centres is precluded by the vessels having to stop at intermediate points to service either passenger or freight requirements. In some cases, not only is this undesir-

able, but is also unwarranted, as some of these intermediate communities are connected to the highway network, and except for taking advantage of the ridiculously low freight rates, the residents would not use the service.

Routes have been designed to service not only intra-community travel, but travel between those small communities and major terminal points on the Island. The major terminal points have developed historical trade connections which today influence the schedules and the routes offered. For instance, Lewisporte is one of the main supply ports for the Labrador service. This service could just as easily be provided and managed at possibly lower costs at St. Anthony, but because of historical trade ties, employment commitments, and infrastructure, it is now difficult to develop a new terminus.

5. Reservation System

There appears to be a complete lack of a reasonable reservation system for coastal boat users. For persons living in the more populated centres, reservations can be obtained but the remote communities have no access to CN personnel. Often it is difficult for these people to obtain space on the vessels and if seating space is available, berth space usually is not. The people in the remote areas are particularly disgruntled because quite often the space on the vessels is taken by tourists who booked well in advance through the St. John's office, and as a result enjoy a very inexpensive holiday, since there is no distinction in the fare structure between tourist and non-tourist, and since the service is 94% subsidized.

6. Loss and Damage

Although CN could not present the Commission with loss and damage statistics, there are indications that the total amount paid annually by CN, in respect to these, is high.

Firstly, as pointed out earlier, many of the vessels used in the coastal service are small and have no provision for modern freight handling methods. Cribs, pallets and containers cannot be handled, rather freight must be physically stowed into the vessels' holds. When freight is forwarded in a palletized or containerized state it must often be broken down before it is placed in the ships. This gives ample opportunity for pilferage and damage.

Secondly, as also pointed out, at many of the smaller communities, particularly in Labrador, there is no suitable wharf available to the vessel. The unloading from the coastal boat to a small fishing boat again results in damage. In communities where adequate wharf facilities are available, freight is often off-loaded and left on the wharf without the consignee officially receipting same. Again, this leaves considerable room for pilferage.

In most communities that have a wharf, a wharfinger is employed to receive freight and generally be in charge of activities at the wharf. This should at least ensure that the amount and condition of freight as it arrives is accounted for. The individual, however, is employed jointly by MOT, CN and the consignees. The divided loyalties of the position make it difficult for the individual to function properly.

7. Fares and Rates

Fares and rates on the coastal boats are ridiculously low, having been established in the 1930's and not increased since. While this represents a major financial contribution to the person living in the remote area who often does not enjoy a high wage level, it presents serious problems to areas which are served by other surface modes of transport.

For instance, in areas served by road, as well as coastal boat, a high proportion of all freight is moved by vessel. Not only is this adding greatly to the yearly subsidy requirements of the whole operation, but the low rate precludes the development of a viable trucking industry. It is estimated that 25% of the freight handled by CN coastal could be moved by alternate surface modes. This is an important point to consider, as the existence of a good trucking industry will become extremely important when the communities concerned are connected to the highway system. It is noted that the low rate structure has already destroyed much of the private shipping trade which, in years gone by, provided a very worthwhile service to nearly all coastal communities. Without the benefit of competition, even though the rates may be low, this usually results in poor service.

Although the low passenger fares are designed to help the people of the remote areas, this is often not the case. Since no distinction is made between natives and tourists, the low fares are an incentive to visitors to see a quaint part of the country at an extremely low price. No statistics are maintained on the native/tourist ratio for users of the system, but complaints from people along the coast indicate that the numbers of visitors using the service in the summertime are substantial.

8. Capacity of Vessels

During the spring and fall seasons of the year, available capacity presents very little problem to the users of the coastal boat system. During the summer, however, when local and tourist demands coincide, there is evidence that for certain segments of the routes, particularly in Labrador, demand exceeds available capacity. This is a particularly contentious point with the local people who view, and correctly so, the coastal boat as their only means of surface transport.

9. Operational Efficiency and Cost Characteristics

The operational methods and efficiency of the CN Coastal Service has, in the past, been somewhat less than ideal. Rather, the service has grown *ad hoc*, without direction and in response to pressures from politicians, unions and users. Good business practices were seldom followed and as long as MOT was willing to meet all subsidy requirements there was little incentive for CN to be cost effective. This basic disinterest on the part of both CN and MOT has resulted in an ever increasing demand for financial aid coupled with an ever growing service dissatisfaction.

The total cost of providing the coastal service, like that of the Gulf Service, has been increasing at a high rate, particularly in recent years. From a subsidy requirement of \$3.7 million in 1959-60, the yearly operating deficit has grown to \$23.9 million in 1976-77, (annual deficits can be seen in Figure 5-9) representing an average compounded rate of increase of about 10% per annum. The revenues which are based on fares and tariffs set in the 1930's and not significantly changed since, represent today only a 6% cost recovery factor, down from 12.8% in 1972.

A further analysis of cost data presented to the Commission indicated that the coastal service is by far the most heavily subsidized service available in the Province. The data presented in Table 5-20 gives unit support costs for 1972 and 1976. This increase in terms of current dollars should be noted.

Table 5-20 Comparison of Support Costs for Coastal Boats 1972 and 1976

| | 1972 | 1976 |
|----------------------|------|------|
| Freight (\$/Ton) | 109 | 169 |
| Passengers (\$/Trip) | 84 | 145 |

The use of the 'Runner'/'Sprinter' type vessels, subsequent to the Newfoundland Coastal Transportation Study, has resulted in a considerable improvement in the costs of providing passenger service to the area served. This would indicate that where practical, if for no other reason, the same type vessels should replace the existing conventional types.

Finally, one of the most disturbing aspects of the cost structure of the coastal service lies in the difference in costs between the MOT-owned vessels and the locally chartered vessels. A review of the 1977 budget for coastal operation shows that ships on charter, which represent a major portion of the CN fleet, account for only 14% of the total costs, while CN owned vessel operations cost 39.5%. Although the Commission is aware that the MOT-owned vessels are basically passenger vessels, whereas those chartered are used for the transport of freight and that under normal circumstances the passenger vessels are more costly to operate, the transport of freight on

the passenger vessels, as is done by CN, adds to the cost of the operation and only serves to indicate some of the inefficiency of the coastal boat system.

Assessment of Air Service

Newfoundland is served by four levels of air carriers:

- 1) Air Canada, servicing the long haul routes between major Newfoundland and mainland cities;
- 2) Eastern Provincial Airways (EPA), a regional service operating on both an intra and interprovincial basis;
- 3) Several small airlines, providing intercommunity service on the Island and in Labrador; and
- 4) A variety of charter services.

Although there were a number of areas of dissatisfaction associated with the air service available in this Province, from investigations carried out by the Commission it appears that the industry is well received by the general public and relative to the other transport modes, receives the least number of complaints.

1. Airports and Airstrips

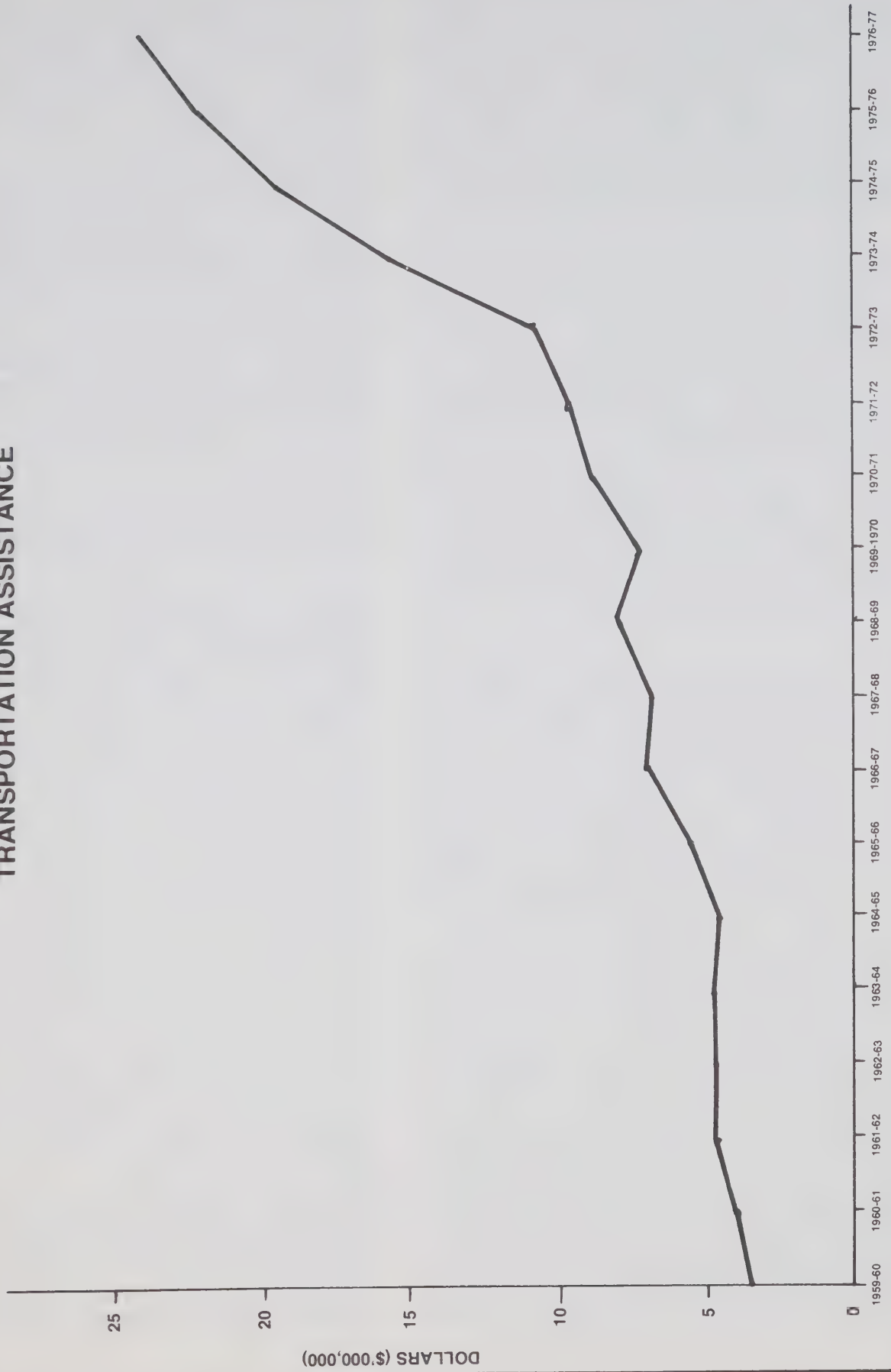
The Commission did not conduct exhaustive research into the suitability of the present system of airports in operation in the Province, particularly those used by the national and regional carriers. In general, however, while there is considerable room for improvement with respect to terminal buildings, instrument landing systems, and baggage handling facilities at various centres in the Province, the main airports appear adequate or at least similar to those found in similar sized cities or towns in other parts of the country.

The Commission notes, however, the complete lack of airstrips and facilities available to the third level carriers, particularly in Labrador. This particular problem has been studied and is well documented in the Labrador Area Master Plan and it is not the intention of the Commission to report all the details here. In this connection the announced intention of the Federal Government to construct fourteen such airstrips in Labrador is noted. This should allow year round operations with Twin Otter aircraft.

In addition to the problems of airstrips to serve coastal Labrador, the Commission notes the lack of suitable strips to facilitate air travel to remote points around the island part of the Province. Of particular concern is Fogo Island which, because of severe ice conditions, is routinely without any surface transport for periods of the winter months. Although emergency air service is provided through the use of ski-equipped planes, suitable landing areas are difficult to obtain which restricts the efficiency of the air lift operation. A permanent strip would obviate this problem.

Figure 5-9

C.N.R. NEWFOUNDLAND COASTAL SERVICES
FEDERAL GOVERNMENT DIRECT
TRANSPORTATION ASSISTANCE



2. Routes and Schedules

Air services between major Newfoundland centres and mainland cities are generally adequate. Although routes and flight frequencies of the major scheduled airlines are under periodic review and service changes frequently made, a review of the load factors of both major airlines shows that most routes are well patronized and in general meet with public approval. Throughout the course of the public hearings, there were suggestions of various changes and/or additions to the present schedules. These include:

- (a) increase flight frequency to Stephenville from mainland points;
- (b) the addition of a new early morning service from Corner Brook to St. John's; and
- (c) permission for EPA to carry passengers and cargo from Wabush to Montreal.

As far as points (a) and (b) are concerned, the economics of providing the additional services have been investigated and the projected costs far outweigh the anticipated revenues.

With respect to (c), the Commission notes that this has been a continuing problem for some time. The route is presently serviced by Quebecair, and a licence to EPA would undoubtedly erode the market position of Quebecair. However, in the interest of the public to be serviced, it would appear that there is some justification for such a service.

3. Fares

In the opinion poll carried out by the Commission on the adequacy of transport services, fare structure was the only characteristic of the industry for which there was widespread dissatisfaction. There is an overwhelming opinion that fares charged by all the scheduled carriers in the Province are too high and, in fact, unreasonable. While the Commission notes some variance in fare structure, there are, however, some significant indications that the fares charged are not extreme in light of airline operating expense and the degree to which the flights are patronized.

Airline fares are usually based on a formula which takes into account the fixed costs associated with the trip as well as the variable costs associated with the distance travelled. In this regard, the fares charged by Air Canada for travel to and from Newfoundland points are similar to those charged for like distances between mainland centres. Because Air Canada is operating on the long haul route, operating costs are generally lower than those of other airlines which operate on much shorter routes. It is these variables which give rise to an apparent fare differential between the airlines. The Commission could find no evidence to support the claim that the fares were unnecessarily high.

Labrador Airways does, however, receive an operating subsidy of \$150,000 annually from the Provincial

Government as part of the cost of servicing non-economic routes in Labrador.

From an indirect subsidy point of view, however, there is considerable public support given the air industry. Operating costs of airports (which exceed revenues in Newfoundland) with annual capital costs indicate that a significant sum is spent by the public purse on air transport.

Total System Evaluation

Previous sections of this report have dealt separately with the operations of the many components of the Newfoundland transport system. This section now attempts to examine the inter-relationships of the various modes and to evaluate how the system, as a whole, is serving the needs of this Province. The criteria for evaluation include some which are objective and measurable, as well as those which are purely subjective. In general, they consist of service related, cost related and social consequence related criteria.

1. Service Related Characteristics of the System

a) Coverage

One of the fundamental issues to be resolved in assessing the service performed by the system is the extent to which residents of the Province receive transport services and whether coverage is uniform through the Province. The Commission, through its public hearings and research projects, has noted a wide disparity of service available to the various regions of the Province. For instance, in the more populated centres all of the major modes of air, sea, rail and highway are available to some degree for passenger and/or freight services, and because of the relatively high level of activity combined with some market competitiveness are also reasonably priced. However the remote and sparsely populated areas are often served by only one mode and in certain periods of the year receive no service at all.

This type of variance of service availability with size of population is to some degree expected and indeed justified. For example, it would be most difficult and highly expensive to provide northern coastal Labrador with the same type of highway system that is required on the Avalon Peninsula. This is not to say that the residents of the less populated areas of the Province should not expect at least one reliable mode of transport. There are certain minimum acceptable standards which the Commission feels should prevail to ensure that all citizens of the Province have some reasonable form of transport.

At present there are four basic voids in the system where it is felt the system does not provide an acceptable level of transport opportunity. They are:

- (i) the remote communities along the southwest coast and northeast coasts including Labrador, served by coastal boat as the only surface mode;

- (ii) public passenger transport provided by bus and train services;
- (iii) communities on the highway network, but served by coastal boat, but so small in size that economic freight services are an impossibility; and
- (iv) Labrador West where the only surface mode of transport is a train service which is in competition with industrial trains.

It has been demonstrated in earlier sections of this report that the Coastal Service, in its present state, is an inefficient and, in some cases, ineffectual method of surface transport. Costs are high, service is slow, and, in general, the level of service is poor. On the northeast coast where Arctic ice is encountered, the service is at best a six month operation. Admittedly, there is an air service to the area, but the absence of suitable landing strips precludes operation of that service for periods of fall freeze-up and spring break-up. This means that for those periods of the year no form of transport is available to the residents of this area. The air service when available is costly to the user and is not available to most residents. Because of the limited shipping season for the Coastal Service operation and due to the high cost of air freight, supplies must be stockpiled in the fall season in sufficient quantities to carry the residents through the winter.

In addition to the fare structure which is in itself a deterrent to passenger travel, winter time travel is limited because the whole area is void of instrumented airstrips and all flying must be done under visual flight rules. Thus the cost, combined with the uncertainty of flight schedules, limits passenger trips to only those of an essential nature.

The southwest coast, while not facing total disruption of the Coastal Service, as is the case on the northeast, suffers from many of the similar problems due to the inefficient Coastal Service operation.

The immediate impact of the restriction on access to transport is to limit employment opportunity, constrain economic development, limit educational opportunities and add significantly to the cost of living. (The lower freight rates available on the Coastal Service are often offset by the high inventory costs caused by the loss of year round service.) Since the areas concerned are generally economically depressed, the effect of these deficiencies is much more pronounced than it would be otherwise.

The second area of inadequate transport is that of the public service provided by the buses and trains in the Province.

It has already been demonstrated that the corridor bus service operated by CN is an inadequate replacement for a passenger train service. Similarly, passenger train services on the existing branch lines and in Labrador suffer from many of the same inadequacies as the bus service. While the passenger market is

reasonably well served for those persons who have access to a private automobile (i.e., riders who have a choice of mode), persons who must rely on public transport (i.e., captives to this mode) are drastically disadvantaged. Since this group consists of principally the poor, the old, the very young and the infirm, it is quite clear that a first class system, based fully on a user pay policy is not practical. To attract riders which now use an alternate mode and who have the economic means to support such a service would require very significant improvements and thus the present facilities are relegated to the status of a poor service for poor people.

The final area of inadequate coverage by the transport system lies with freight services to the remote but highway connected communities. These communities, e.g., in the extreme parts of White Bay, Bonavista Bay, St. Mary's Bay and Placentia Bay are not connected to the Coastal Service and must rely on highway services for delivery of freight. Because of the sparse population and rather low freight demand, trucking firms are either not interested in providing a service, or in cases where licenses are granted, it is usually on an unscheduled basis. The result is severe delays in the movement of freight to these areas. Although centralized warehousing, where freight could be consolidated, would aid in providing more economic payloads for truckers and would help to provide some stability to the regions concerned, the low populations and hence low freight demand is a fact of life and as such freight services and perhaps passenger services as well can only be provided through subsidy programs. However, since the areas served are mainly looked after by the very small trucking entrepreneur it is not likely that he would have the economic means to develop this type of warehousing, or provide subsidy. The initiatives then must fall to the government to ensure that those concerned will have a reasonable chance of receiving at least some regular form of service.

b) Dependability and Reliability

From a user standpoint, dependability and reliability of service are the most important characteristics of a transport system. Certainly, from the user interviews conducted by the Commission, these are the prime determinants in mode selection. Although many improvements to the Newfoundland system have been implemented in recent years, the users are not convinced of any high degree of dependability. As can be seen from earlier sections of this report, transit times vary a great deal between, as well as within, modes. For business concerns which rely on the transport system for movement of large quantities of goods, this has a particular significance, chief of which is the high inventories which must be carried in order to ensure good availability of product. Of the 65

major companies interviewed by the Commission, all indicated they carried excess inventory as they felt that transit times, for orders being delivered, vary so much as to render them unreliable. Table 5-21 shows a comparison of inventory turnover between Newfoundland and the national average. In all cases, the turnover rate is less in Newfoundland than elsewhere.

Table 5-21 Comparison of Annual Inventory Turnover

| Types of Business | National Ratio | Nfld. Ratio |
|--------------------------|----------------|-------------|
| Wholesale Food | 19.4 | 8.5 |
| Retail Food | 17.4 | 16.0 |
| Retail Furniture | 5.3 | 3.0 |
| Retail Hardware | 14.8 | 13.0 |
| Retail Building Supplies | 7.2 | 5.0 |

The excess inventory translates into higher costs of warehousing, staffing, interest and overhead which ultimately must be borne by the Newfoundland consumer.

The degree of dependability and reliability is not uniform through the system or throughout the Province. The opinions of those people interviewed by the Commission show that the railway is looked upon as the least reliable, with trucking being the most reliable. Also, reliability varies inversely with remoteness from the populated centres. In other words, the more remote, the less reliable the system becomes. This is particularly aggravating in areas like coastal Labrador which, in addition to unreliability of the service, has a surface link with the rest of the Province for only six months of the year.

From the standpoint of passenger services, reliability is generally good except for delays caused by weather conditions. Severe winds can at times disrupt bus and Gulf ferry operation, ice can halt the Coastal Service, and weather can ground aircraft in Labrador.

Generally, while delays are troublesome because personal schedules are disrupted, the durations are short, compared with those encountered by freight, and as soon as the external forces causing the delays have been removed, operating schedules are resumed.

c) Loss, Damage and Insurance Claims

While a large part of the freight moved to, from and within Newfoundland today moves as full truck loads, car loads or container lots, and while damage and loss experienced on these movements is generally low, there are a number of other areas where damages are high and claims become somewhat of a nightmare for the shipper or consignee. One of the problem areas is that of the Gulf ferries.

Rail traffic moving on the ferries is considered to be as if it were on a continuous rail line and full responsi-

bility for loss and damage is accepted by CN when it has been proven that the losses or damages occurred in transit. Since a large portion of this movement is full carload lots which are sealed at point of origin and not opened until receipted by the consignee, there is little room for complaint to CN. The goods which move through car to car transfer have a relatively high incidence of loss and damage, although more thorough checking by CN supervisory personnel is now improving the situation.

Another problem lies with the movement of trucks and private vehicles on the vessels. Here, the liability of CN Marine for damages, regardless of how they are caused, is limited to that contained in the "Carriage of Goods by Water Act" which at present is \$500. Because of this, truckers are reluctant to enter into an arrangement whereby the trailer part of the vehicle only would travel across the Gulf. Although this would demonstrate a significant saving as far as vessel carrying capacity and truck operating costs are concerned, the risk of damage to equipment by CN, combined with the limitation on liability, retards development of this part of the industry.

For goods moving within the Province, the condition of the highways, and the obsolete and inappropriate coastal vessels give rise to a high incidence of loss and damage. This presents major problems to consignees who are depending upon the delivery of goods to meet commitments. While the opportunity to recover costs of loss and damage are relatively good for trucking, the cost of loss and damage on the coastal boats has the same restrictions as those outlined above for the Gulf service. In both cases however, the time required in processing claims is long, sometimes as high as five months. The absence of a prompt claims payment service is an undue hardship on the shipper in this Province.

d) Lack of Co-ordination Between Modes

The whole transport system in Newfoundland suffers from a lack of co-ordination between modes and often between carriers within modes. The degree of interlining for both freight and passengers is not as great as it could be, often placing the residents of this Province at a disadvantage.

In most cases, this is caused because each carrier is concerned with his own route and service and as such no one is concerned with the overall effectiveness of the total system.

On the passenger side, there is little, if any, co-ordination between CN bus services, feeder bus services, airline services and coastal services, although there appears to be some degree of co-ordination with the Gulf ferries. This results in excess waiting times, and excess expenses often incurred by the travelling public who require a carrier change to complete their journey.

On the freight side, routes off the TCH corridor, for which mainland carriers have licences, receive some service even though in some cases it may not be a regularly scheduled one. However, if a carrier or inter-modal change is required, long waiting time may be encountered as the goods often sit in a yard or warehouse waiting for someone to take the responsibility to move it to the interlining company.

2. Cost Characteristics

As was demonstrated in the review of the component parts of the Newfoundland transport system, the cost of providing service to, from and within this Province is an extremely high one, with subsidy policies showing many inconsistencies. The Commission has examined, in some detail, the cost structure of the transport system and presents the most salient points of that analysis here.

a) Inter-modal Cost Comparison

In examining the cost structure of the system, it was first necessary to differentiate between the cost which the user pays or the price of service, and the total cost of providing that service, made up of carrier costs, plus direct and indirect subsidies. In no case did the Commission encounter a situation where the price equalled the total costs. In other words, the "user pay" principle, as far as Newfoundland is concerned, is not being applied. What is of particular concern is the rather indiscriminate manner in which subsidy or support costs are being given or applied to the various modes, often resulting in distortions of the competitive market and utilization of the most ineffective way of moving goods and people.

It is not possible to present cost statistics for all the routes and services available in the Province. In fact for most carriers which operate several routes using common equipment, separate detailed costs data are not available. For illustrative purposes, the Montreal/St. John's services, which handle over 50% of all incoming freight have been analyzed separately and are presented in Table 5-22 showing the average costs per ton for 1976 by the three major modes.

Table 5-22 Average Costs Including All Support Costs in Dollars Per Ton For Freight Moving Montreal to St. John's

| | Montreal to North Sydney | Gulf | P.A.B. to St. John's | Total |
|--------------------|-----------------------------|------|-------------------------|-------|
| Rail | 26 | 60 | 60 | 146 |
| Highway (Via Gulf) | | 40 | | 155 |
| Direct Water | | | | 91 |

As can be seen, the highway mode is the most costly of the three while direct shipping is the least costly.

While these figures represent reasonable estimates of the total cost of moving freight from Montreal to St. John's, they by no means represent the price charged to the user. For all three modes there are substantial subsidies available on a direct or indirect basis.

In the case of rail, these are 1) direct assistance on the Gulf, and 2) cross subsidization by the carrier as the rail traffic in Newfoundland in 1976 sustained a total loss of \$14 million.

In the case of trucking, subsidies are 1) in the form of Gulf support over the rate charged by CN Marine to move the vehicles, and 2) costs of providing and maintaining the highways over what is paid by the truckers in the form of taxes and license fees.

For the steamship services concerned the Federal Government pays a direct subsidy of \$15.64 per ton (however, only to Newfoundland Steamships Limited). Also indirect subsidy is provided in the form of National Harbours Board and Coast Guard support. A comparison of total costs, shows that the railway is most heavily subsidized while the water is the least subsidized. Table 5-23 summarizes the subsidies paid to each.

Table 5-23 Intermodal Comparison of Average Subsidy Support on Montreal/St. John's Service

| | | \$/Ton |
|---------|--------------------------------|--------|
| Rail | Gulf Support | 57 |
| | Cross-subsidy Due to Shortfall | 23 |
| | Total | 80 |
| Highway | Gulf Support | 40 |
| | Highway Infrastructure Support | 9 |
| | Total | 49 |
| Water | Direct Subsidy | 16 |
| | Coast Guard | 4 |
| | National Harbours Board | 3 |
| | Total | 23 |

While the situation in Tables 5-22 and 5-23 represents an average condition on one of the most heavily utilized transport routes, it should not be misunderstood as being a complete cost analysis of the whole system and for all conditions. It is pointed out, however, that large differences in the level of public support are paid either intentionally or otherwise to the various modes. The result of this uneven support has been to foster and develop modes of transport which have tended to distort the true competitive market situation and has really led to the promotion of ineffective modes. Such a support policy allows carriers to compete relatively easily on the basis of price rather than on the basis of service. In other words, carriers can provide a relatively poor level of service

and as long as sufficient subsidy is available to allow competitive rates they can remain in business and there is no incentive to improve the service.

Of course these subsidies did not arrive at the present levels overnight. Rather, there has been a gradual escalation in the level of support provided by the Federal Government, more than anything else caused by the rather lax attitude of the government towards operations of the Gulf.

In making the above cost comparisons, the effect of the inefficient railway operation in Newfoundland is easily seen. Since the tonnage carried on the line has dropped off so drastically in recent years, the fixed cost associated with the operation must now be distributed over a much smaller volume. For instance, for most of the CN system, fixed cost represents 25% of the total costs. In Newfoundland, fixed costs represent 40-50% of the total. This explains why the Port aux Basques to St. John's segment shown in Table 5-22 is so high.

A reasonable question then might be, why not improve the railway to give better service and thereby attract more business which in turn would give rise to lower unit costs? This indeed might be feasible if the capital costs of the required improvements were low and if rail freight were not required to cross the Gulf. The operation and transfer costs on the Gulf, however, increase with the traffic carried and, therefore, regardless of what the railway might do, large operating subsidies would still be required for rail freight carried on the Gulf plus very substantial investment in new ferries and terminals.

b) Freight Rate Subsidies

Currently, in addition to the subsidy and support as already discussed, there are two specific programs of subsidy available to carriers to enable a reduction in certain freight rates to shippers. The effectiveness of these programs, which were originally intended as a measure of assistance to help Atlantic based industries to be competitive in the central Canada marketplace is seriously questioned and as a result both programs are under review. Since their implementation, modification to their scope has resulted in the subsidy being extended from purely freight moving westward from the Atlantic area to include freight moving within the area. The net result has been to view the subsidy as a means of containing the cost of consumer goods rather than an aid to industrial development.

As a development tool the programs have not achieved their objective and even in some cases have tended to discourage development in some parts of the region. For instance, potato farming in this Province has been retarded partly because of the low freight rate which enables P.E.I. potatoes to compete effectively in local markets.

Perhaps the most serious drawback has been that the subsidy did not apply equally and to all modes. The original Maritime Freight Rates Act instituted in 1927, applied only to rail. This certainly gave an advantage to that mode until in 1969 The Atlantic Freight Rates Assistance Act was instituted, and a similar program extended to trucking. The result was that there was an immediate increase in truck utilization. Even to the present time, the subsidy is not available to the air or marine mode although amendments to the program are expected to instigate changes in that direction in the near future.

From a systems standpoint, the effect of the uneven application of these programs has again led to the utilization of modes of transport which were not the most cost effective. Although some improvement was evident when trucking was allowed a similar program to rail, the true effectiveness will not be realized until all modes are treated equally.

In the past, because Newfoundland lacked large scale manufacturing, this Province had not benefited from the programs to the same degree as other provinces. For instance, a disturbing feature as far as this Province is concerned, with both the present legislation and the proposed amendments, is that there is no provision for a subsidization of commodities going into the export market. Since in this Province the number of products produced, which could eventually be placed in the Canadian market, is relatively small, the true impact of the program cannot be felt. An extension of the program to export products such as fish, would enable our products to be more competitive in the world markets, a situation which would have an immediate and beneficial effect here.

3. Social and Economic Impacts of the System

The effectiveness of a transport system, to some degree, can be measured by the socio-economic impacts it produces or is responsible for in the community. The Commission, in assessing the effectiveness of the system, limited its review to; 1) the effect of transport on the cost of food products, 2) the effect of transport on tourist industry development, and 3) the role of transport in providing employment.

a) Impact of Transportation on Food Prices

One of the often quoted reasons for the high price of consumer goods in this Province is the high cost of transportation. In an effort to test this hypothesis, the Commission examined, in some detail, the transport methods, tariffs, and method of payment involved in moving food products from mainland processors to Newfoundland consumers. Twenty-five commonly used products were considered and, for comparative purposes, the unit sizes and types were the same as those used by Statistics Canada for the Consumer Price Index calculations.

It is interesting to note that the Food Prices Review Board completed a similar piece of work in 1974, wherein it was concluded that while there are marked differences between Newfoundland and mainland prices, the whole distribution system of wholesalers, jobbers, exclusive agents and retailers, accounted more for the differentials than did the transport tariffs.

Since 1974, there have been significant changes in the physical distribution system for food products. Fewer but larger wholesale companies (some of which operate their own transport service), an increase in the number of mainland chain store supermarkets and a decrease in the use of exclusive agents are just some of the changes. Still, from the data gathered by the Commission, there are significant price differentials between prices in St. John's and those in Toronto and Halifax, which cannot be traced to transport costs. A resumé of all the price differentials can be seen in Table 5-24. It is important to note that the sample data shown represents prices for a single week only. Prices between locations fluctuate drastically and what is shown for one week may not necessarily hold for another period.

The major findings of the survey are:

(i) For most food products surveyed which are imported into Newfoundland (72%), transportation

costs per unit are lower than the difference in the retail selling price between St. John's and Toronto. Therefore, direct transportation costs are not alone contributing to the difference in retail prices.

(ii) For the remaining products (28%), surveyed transportation costs per unit are higher than the difference in the retail selling price. Therefore, the direct transportation costs are not being covered by the difference in mark-up on retail price. Transportation of these products is in effect being subsidized to Newfoundland.

(iii) For a majority (64%) of food products observed transportation costs are prepaid but the extent to which they are absorbed by the processor cannot be determined.

(iv) Most bulky or heavy weight food products are shipped to Newfoundland from the mainland of Canada and the U.S. by water or rail mode.

(v) Most perishable foodstuffs observed are shipped to Newfoundland from the mainland by truck for speed of delivery. When truck is used for such products, the unit transportation costs are less than the retail price difference.

While the transportation charges alone do not always account for the price differentials, the Com-

Table 5-24 Transportation Cost—Retail Price Differences

| Product | Origin | Transport Mode | Transport Terms | Unit Transport Cost | St. John's Toronto Price Difference | St. John's Halifax Price Difference |
|-----------------------|-------------------|----------------|-----------------|---------------------|-------------------------------------|-------------------------------------|
| Evap Milk (16 oz) | Que | Chimo, Clarke | Prepaid | .03 | .02 | .04 |
| Powd Milk (3 lb) | Que | Chimo, Clarke | " | .09 | .23 | .25 |
| Butter (1 lb) | Ont | Truck | " | .07 | .28 | .27 |
| Sausages (1 lb) | Ont | Truck | " | .07 | .26 | .34 |
| Bacon (1 lb) | Ont | Truck | " | .07 | .36 | .20 |
| Wieners (1 lb) | Ont | Truck | " | .07 | .26 | .19 |
| Chicken (1 lb) | Ont, NS | Truck | " | .07 | .20 | -.01 |
| Salmon (7 ¾ oz) | BC | CNR | Collect | .04 | .28 | .13 |
| Shortening (1 lb) | Ont | CNR | Prepaid | .04 | -.06 | .08 |
| Flour (7 lb) | Que | Clarke | " | .17 | .11 | .26 |
| Corn Flakes (16 oz) | Ont | CNR | " | .04 | .08 | .14 |
| Soda Crackers (16 oz) | Que | CNR | " | .07 | .00 | .07 |
| Sugar (2 kg) | Que | CNR | " | .11 | .22 | .17 |
| Jam (9 oz) | Ont | Chimo | Collect | .02 | .06 | .11 |
| Bananas (1 lb) | US (Florida) | Truck | " | .04 | .09 | .07 |
| Potatoes (10 lb) | PEI | Truck | Prepaid | .31 | .90 | .40 |
| Onions (1 lb) | Ont | CNR | Collect | .05 | .03 | .04 |
| Carrots (1 lb) | Ont | CNR | " | .10 | .08 | .05 |
| Cabbage (1 lb) | US (Fa, Texas) | Truck | " | .07 | .10 | .10 |
| Lettuce (1 lb) | (Ca) US | Truck | " | .04 | .21 | .04 |
| Baby Food (4½ oz) | Ont | Clarke | Prepaid | .02 | .03 | .03 |
| Veg Soup (10 oz) | Ont | CNR | " | .03 | .03 | .02 |
| Jelly Powd (3 oz) | Ont | CNR | " | .01 | .02 | .02 |
| Oranges (1 lb) | (Ca) US | CNR & Truck | Collect | .04 | -.02 | .02 |
| Grapefruit (1 lb) | US (Florida) | Truck | " | .04 | .01 | -.06 |

A minus (–.05) denotes a retail price higher in Toronto at the time of sampling. Price differences are first week of September 1977.

mission made no attempt to ascertain the reasons for the remainder. The principal conclusion which the Commission feels can reasonably be drawn from this exercise, is that transportation charges alone are not responsible for the price differentials. (It should be noted that the high inventory which Newfoundland businesses are forced to carry has already been established as a contributing factor in the generally higher commodity prices in the Province.)

It is difficult to extend this reasoning to other parts of the Province, however, as servicing the small communities with small volumes can result in somewhat higher unit transport costs. Within the time available to the Commission, it was not possible to carry out a Province-wide study which would be meaningful.

b) *The Effect of Transport on Tourism*

Although tourism is not as yet a major industry in the Province, it does contribute significantly to the Provincial economy. Statistics kept by the Provincial Department of Tourism indicate that there is considerable use made of the Gulf ferries by tourists visiting the Province. Table 5-25 shows the pattern since 1973.

Table 5-25 January-December Non-Resident Autos

| | 1973 | 1974 | 1975 | 1976 | 1977 |
|-----------------|--------|--------|--------|--------|--------|
| Passenger Autos | 23,684 | 27,329 | 29,785 | 27,874 | 26,517 |
| Auto Trailers | 2,774 | 3,256 | 3,243 | 3,482 | 2,886 |
| Campers | 1,754 | 2,309 | 2,565 | 2,550 | 2,191 |
| Buses | 43 | 58 | 69 | 162 | 64 |
| Motor Cycles | 336 | 487 | — | — | 671 |
| | 28,591 | 33,437 | 35,662 | 34,068 | 32,329 |

To a large extent the growth of the industry is then dependent on the relative ease with which tourists can cross the Gulf. In the past the fare structure combined with accommodation problems have been a deterrent to the industry.

A study of the Gulf ferry services in 1976 revealed that during the July and August peak season, the car deck capacity on the North Sydney/Port aux Basques run and the North Sydney/Argentia run was filled or booked to capacity on certain sailings. The effect of this is to limit the number of tourist related vehicles entering the Province and thus to retard the industry as a whole. An example of the difficulty one might encounter in trying to obtain accommodation can be seen from the degree of overbooking as shown in Table 5-26.

Table 5-26 Overbookings

| | July 1977 | | | | August 1977 | | | |
|---------------------------|-----------|------|------|------|-------------|------|------|------|
| Sailing (Hour) | 0830 | 1145 | 1630 | 2245 | 0830 | 1145 | 1630 | 2245 |
| Percentage of Overbooking | 35% | 10% | 38% | 52% | 10% | 0% | 0% | 61% |

The Department of Tourism outlook for 1978 indicates stability or a slight decrease in tourist volumes if the present ferry situation is unchanged; a 2-4% rise if the second Argentia ferry is replaced; a 5-8% escalation if the Gulf service is reorganized, and a 9-12% jump if fares are reduced by 25% and the service reorganized. The long range projections are difficult to foresee but with the recent five year DREE agreement, tourist attractions in the Province should draw more visitors, in which case the ferry capacity would be the ultimate limiting factor.

c) *The Role of Transport in Providing Employment*

In the Newfoundland region, where unemployment has always been a major problem, the transport system has assumed the dual role of providing employment as well as serving the transport function. In this respect, service improvement which would result in reductions in employment, have been resisted.

At the present time, it is estimated that there are approximately 7500 people directly employed in the transport industry. This figure, however does not include persons employed in private trucking firms for which no statistics are maintained. Being involved in all the surface modes it is not surprising that CN accounts for nearly half of the above total. The presence of highly organized unions in CN, and their efforts to maintain as many jobs as possible, is in the end a deterrent to innovative planning. For instance, the substitution of chartered vessels in place of CN-owned vessels on the Coastal Service is being vigorously opposed by CN unions, even though it has been demonstrated that the chartered vessels can serve the function at a lower cost than CN-owned ships.

This situation is not unique to CN. A few years ago, the substitution of side-loading vessels for top-loading vessels was vigorously opposed by stevedoring unions even though there is no question that the side-loaders provide a much more efficient service.

While it must be recognized, that employment is an integral part of the transport system, and changes which displace large numbers of people create a great deal of social upheaval, there must be an ongoing attempt to optimize the service and cost aspects of the transport system. In cases where reductions in employment result, they should be treated as serious problems for which appropriate solutions must be sought. To retain outdated and costly transport services solely on the basis of the employment generated, is doing a disservice to the Province.

4. *Vulnerability of System*

The Commission has determined that although there are instances where the Newfoundland system meets or perhaps exceeds comparable services in

other provinces, in general, however, our services are substandard compared to those available elsewhere.

One of the major differences between this Province and others is the vulnerability of this Province to be isolated from other provinces and also for certain parts of this Province to be isolated from other parts in the event of labour strikes. As Newfoundland is an island, all surface connections to the mainland must use the marine mode. A strike in the marine mode, which occurred in 1973, effectively closes not only the marine services but interprovincial rail and highway as well. This situation does not exist elsewhere. Even Prince Edward Island, which is also an island province, has two independent ferry operations and, as such, the probability of a simultaneous work stoppage on both is remote.

Within the Province the areas served by a single mode such as: the coastal vessels in the northeast and southwest coasts, Quebec North Shore and

Labrador railway in Labrador West; and Labrador Airways on the Labrador coast find themselves in the same situation. A strike, work stoppage or a disruption in the service for any reason, brings total isolation. This is a situation which is not found in many other parts of Canada.

Although it has been mentioned elsewhere in this report, the Commission wishes to re-emphasize the importance of the fishing industry to the economic well-being of the Province and the damage to this industry which might result if transport services on which the industry relies are, for any reason, disrupted. At a time when the industry is about to overcome many of its long-term problems, it would be most serious to encounter such disruptions. Four years ago, disruptions of service on the Gulf would not have been of any major consequence to the fishing industry. Today, because of the heavy dependence on truck transport, a similar disruption would paralyze the industry and seriously affect future markets.

Section 3

The Future

Chapter VI

Future Transport Needs

Introduction

The future transport requirements of this Province can be categorized into three distinct components. These are:

- 1) The facilities required to meet the needs of a changing and expanding industrial base.
- 2) The facilities required to accommodate the demand for transport of consumer orientated goods.
- 3) The facilities required to accommodate passenger travel to, from and within the Province.

The following paragraphs outline those factors which give rise to the transport needs of each of these sectors. The summation of the individual sectors gives a composite needs analysis of the planning period to 1990.

A Transport Need Analysis for the Industrial Sector

The outlook for development and expansion in Newfoundland's industrial sector has been explored in two reports: one by G. Bartlett, which is a data base for the Newfoundland-Mainland Study, and another by A. Crichton as part of the Commission's research effort. While the analysis herein will not be as elaborate in detail as contained in these reports, the following is to give a brief outlook on the most likely industrial scenario for the future.

1. Fishing should be the major stimulant to future provincial economy, and should continue to be the largest employer.
2. Mining holds little hope for new expansion in the short term (3-5 years) but the long term outlook is promising.
3. Forest production should remain relatively con-

stant, with some expansion occurring in the sawmill industry if it is integrated with pulp and paper. However, both paper and sawmill industries will depend on control of infestation of forests.

4. Hydroelectric power on the Island has limited potential, but Labrador power will be the key to future industrial development in Newfoundland.
5. Construction should show slow but steady growth, depending on the provincial economy, unless oil and gas or Labrador hydro developments take place.
6. Non-resource based industries show little positive outlook for secondary manufacturing.
7. Agricultural developments have some potential for expansion, but there will still be a relatively low value of production.
8. Tourism has some potential, but large scale growth is not expected. The industry is not likely to achieve the same importance as in other Atlantic Provinces unless major changes occur.
9. Gas and oil exploration has been low-key lately due primarily to jurisdictional problems. Activity should now be sharply increased in 1978. In the event of a commercial find, the results could be economically staggering. The general outlook for the industry is that on-stream production could take place by the late 1980's.

As can be seen, Newfoundland is not a major secondary manufacturing province and there was no evidence brought before the Commission to indicate that this type of industry will ever be of major importance here. On the contrary, the economic well-being of this Province is based on the exploration and development of its resource based industries, i.e., the fishing, the mining, the forests and the hydroelectric

Table 6-1 Values and Quantities of Production
Newfoundland's Fishing Industry, 1969-1976

| | Catches in thousands of metric tons. Values in millions of current dollars. | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|--------------------|
| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 |
| Nominal Catches | 484.7 | 471.8 | 418.9 | 315.5 | 324.7 | 249.6 | 255.6 | 339.2 ^P |
| Market Value of Production | 72.3 | 85.1 | 94.9 | 100.6 | 144.8 | 114.6 | 120.7 | 191.3 ^P |
| Census Value added— processing | 30.8 | 36.1 | 36.8 | 36.5 | 47.9 | 42.9 | 45.8 | 64.7 |
| Total Census Value added | 66.5 | 74.8 | 77.6 | 77.1 | 104.9 | 86.8 | 90.3 | 135.2 |
| As a % of all goods producing industries | 12.5 | 11.4 | 10.7 | 12.1 | 14.0 | 8.6 | 8.2 | 11.5 |

^P—Preliminary

SOURCE: *Annual Statistical Review of Canadian Fisheries 1955-1976*, Vol. 9, Ottawa, Fisheries and Environment Canada, July, 1977.
Central Statistics Division, Province of Newfoundland *Newfoundland Historical Statistics*, Vol. (II) (I), July, 1977.

industries combined with the tourist industry. Of prime importance then, is the transport system which is available to move raw materials from original sites to processing areas, and on to export markets so that the final product does not bear any undue costs.

On the following pages a more detailed description of these resource based industries is presented.

1. The Fishing Industry

In terms of numbers of people directly employed, the fish harvesting and processing industry has been, and still is, the largest single industry in the Province. Although there was a steady decline in the volume of catch for the period 1969 to 1974, subsequent years have seen an upturn. With the adoption of the 200 mile economic zone and proper management of the resource, the future appears to be somewhat optimistic. An overview of the industry is given in Table 6-1.

Traditionally, the fishing industry has been classified as either "inshore" or "offshore", depending upon the location of the fishing effort and the type of vessel used in the harvesting process. Fisheries and Environment Canada has defined inshore fishing as being catches by vessels of 25 tons or less and offshore fishing as being catches by vessels of more than 25 tons. From a transportation standpoint, the only significance of the type of harvest (inshore or offshore) lies in the amounts of product which must be moved around the Province once the product has been brought to some landing point. The larger vessels, generally used in off-shore operation discharging large quantities present some problems, if the transfer from point of landing to point of processing must be accomplished in a relatively short time span.

As already noted, the principal transport needs of the fishing industry lie in moving the product from landing point to processing plants, moving raw products between sister plants to equalize production capabilities, and finally moving processed products to export markets. In recent years, virtually all the transport requirements of the fishing industry have been met by the trucking industry. Although there is still

some export of products by the marine mode, the use of reefer type trucks seems to have satisfied the demands of both the shipper and consignee more than any other mode.

As far as moving the raw material from landing or collection point to point of processing is concerned, the condition of the Province's secondary roads is of paramount importance. The maps in Figures 6-1 and 6-2, plus the data given in Tables 6-2 and 6-3 show the location of the Province's processing plants and the quantities of products moved from these in 1977.

Table 6-2 Tonnages and Percentages of Frozen Exported Fish—1977

| | Tonnage | Percentage |
|------------------------------------|--------------|------------|
| Bay de Verde Peninsula | 13,125 | 16.0% |
| St. John's/Southern Shore | 19,162 | 23.0% |
| Burin Peninsula | 17,000 | 20.7% |
| Bonavista Peninsula | 9,440 | 11.5% |
| Straight Shore | 2,450 | 2.9% |
| Notre Dame Bay | 3,250 | 3.9% |
| Harbour Breton | 3,000 | 3.6% |
| Burlington Peninsula | 4,500 | 5.4% |
| Northern Peninsula | 5,750 | 7.0% |
| South West Coast | 4,290 | 5.2% |
| | 81,967 tons | 99.2% |
| Estimated truck exports 1977 (PUB) | 112,500 tons | |
| Survey | 81,967 tons | |
| Accounted for | 72% of total | |

With respect to the salt fish industry, most of the processing facilities lie on the Avalon Peninsula, while the landing and collection points are scattered throughout the northeast coast and Labrador. This component of the fishing industry is of particularly high value, with production estimated to be worth over 16 million dollars in 1977. The prognosis is that both volume and value of catch will continue to grow over the immediate future, with a possible doubling between the 1976 and 1985 volumes. The result of this places considerable importance on the secondary roads which connect the collection points to the proc-

LOCATION OF NEWFOUNDLAND'S FRESH FROZEN PROCESSING PLANTS, 1975



Figure 6-2

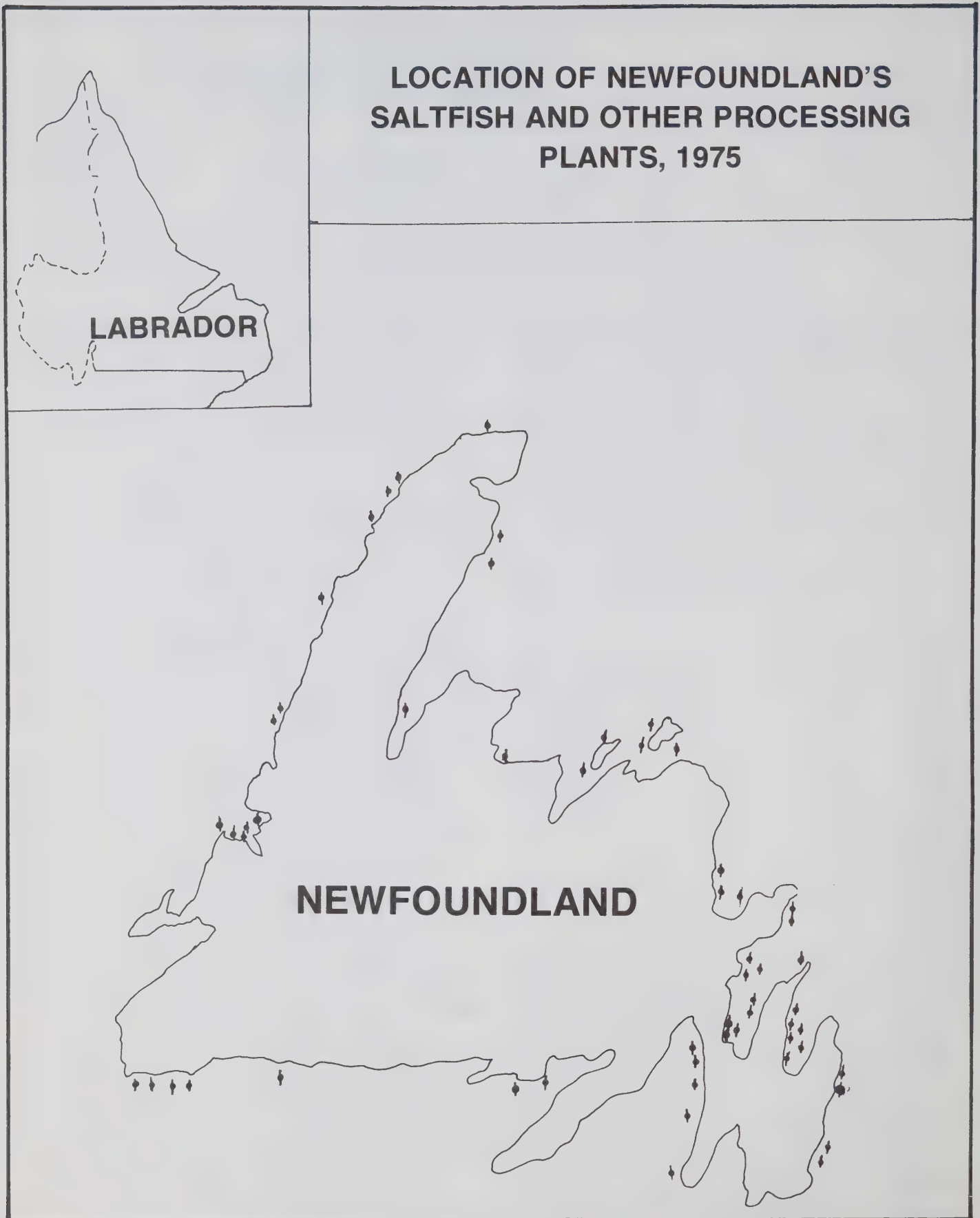


Table 6-3 1977 Frozen Fish Tonnages

| Plant Location | Trucked in (Fresh) | Trucked out (Fresh Frozen) | Source Area |
|---|--------------------------------------|----------------------------------|--|
| <i>Avalon Peninsula (Southern Shore)</i> | | | |
| Witless Bay | 13,250 tons | 4,500 tons | 10% Flatrock 30% Petty Harbour 10% Cape Broyle 50% Placentia/St. Mary's |
| | 1,375t (squid) 800t (offal) | 412t (squid) | Conception Bay via Witless Bay Line Branch to Witless Bay/Trinity Bay area |
| Trepassey | 1,500 tons | 3,500 tons | Mostly trawler fed 1,500 from surrounding area. |
| Bay Bulls | 1,500 tons | 2,000 tons | Torbay & St. Shott's |
| St. John's | 7,950 tons | 7,750 tons | Calvert/Arnold's Cove |
| Holyrood | 1,500 tons | 1,000 tons | |
| <i>Bay de Verde Peninsula</i> | | | |
| Carbonear | 6,000 tons | 500 tons | Old Pelican |
| Hant's Harbour | 2,800 tons | 1,625 tons | |
| Dildo | 2,500 tons | | |
| Dildo | 4,500 tons | | |
| Harbour Grace | | | |
| Bay de Verde | 4,000 tons | | |
| <i>Bonavista Peninsula</i> | | | |
| Bonavista | 1,264 tons | 1,940 tons | Grand Bank/Fer- meuse |
| Charleston | | 3,000 tons | Ladle Cove to Cape Freels |
| Catalina | 1,500 tons | 4,500 tons | |
| <i>Straight Shore</i> | | | |
| Valleyfield | 2,800 tons | 2,450 tons | Ladle Cove to Cape Freels |
| <i>Notre Dame Bay</i> | | | |
| Twillingate | 4,000 tons | 2,250 tons | New World Isld/Fogo/Aspen Cove |
| Lewisporte | | 1,000 tons | |
| Harbour Breton | 2,500 tons | 3,000 tons | Belleoram/Hermitage |
| <i>Burlington Peninsula</i> | | | |
| La Scie | 10,000 tons | 4,500 tons | Whole area |
| <i>Northern Peninsula</i> | | | |
| St. Anthony | 1,500 tons | 2,000 tons | North of Port aux Choix |
| Port aux Choix | 1,500 tons | 2,250 tons | North of Port aux Choix |
| Englee | | 1,500 tons | Brig Bay/Conche area |
| <i>South West Coast</i> | | | |
| Burnt Island | | 100 tons | South Coast |
| Margaree | | 100 tons | South Coast |
| Port aux Basques | 2,600 tons | 2,000 tons | Anchor Pt./St. Davids/Rose Blanche |
| Curling | 2,700 tons | 1,350 tons | Port Saunders/Port aux Choix/Port aux Basques/Stephenville |
| Curling | 2,350 tons | 740 tons | Northern Peninsula/West Coast 75%. Remainder from Sprindale/ Botwood area. |
| <i>Burin Peninsula</i> | | | |
| Marystown | 2,500 tons | 7,000 tons | Terrenceville to Marystown |
| Burin | 2,500 tons | 4,500 tons | Boat Harbour to St. Lawrence |
| Grand Bank | | 3,000 tons | Trawler fed |
| Fortune | 3,000 tons | 2,500 tons | Lawn to Garnish |
| 59.7% from Avalon Peninsula and Burin Peninsula | | | |

essing facility. The problem areas lie on the Great Northern Peninsula, the Labrador coastal road, and the intra-Island ferries, such as the Fogo and St. Barbe facilities.

It is not possible, within the time frame allotted, to determine the economic benefit of these roads to the salt fish industry. However, a qualitative evaluation reveals that the lack of all-weather roads, with the attendant load restrictions during the spring season, adds significantly to the final costs of the processed product. The limitation on loads, and the general inability to use large tractor trailers for pickup purposes, constrains the efficient operation of the processing plants.

The problems encountered by the fresh and frozen segments of the fishing industry are similar in nature to those of the salt fish industry. The transport of raw products over low quality roads, limits the use of large scale trucks, has a detrimental effect on the quality of the product, and adds to the final cost.

The major export markets are the U.S. for frozen fish, and the Caribbean for salted fish. By utilizing the truck mode, a good quality product can be delivered to customers in the amounts required on pre-determined schedules. The importance of the Trans Canada Highway—Gulf Ferry to give access to the North American highway system cannot be overstated. A dire need of the industry at the present time is the reconstruction of this highway together with a ferry system which minimizes waiting time. While the marginal benefit of investment in this highway/ferry system is very significant from the standpoint of reduced production and transport costs, the disadvantages to the Province which could occur if markets are lost through lack of investment would be catastrophic.

As the present transport requirements of the fishing industry have now been identified, attention is now focused on the degree of expected expansion of the industry in the future. The present forecasts of Fisheries and Environment Canada¹ is for a major increase in total allowable catch, perhaps doubling in the period 1977 to 1985. Although increased production demands may place burdens on certain plants within the Island, the excess total capacity which exists would not be greatly overtaxed by the expanded fishing effort. The accompanying transport demands, however, could pose some exceptionally difficult problems. Currently, fish provides a convenient back-haul commodity for the trucking industry, which in the main, hauls high rated foodstuffs into the Province. Since the ratio of incoming to outgoing general cargo is approximately 3 to 1, the rates afforded the fish exporters on what would ordinarily be empty back-

¹ An Overview of Newfoundland's Industrial Activity 1969-77 and future prospects, Andrew Crichton

haul are certainly very attractive. The back-haul capacity, however, is limited to the amount of reefer capacity available. This is considerably less than the total incoming capacity. At present levels of production, during the peak season, the available truck capacity is not sufficient to meet demand. Therefore, if the full growth potential of the fishing industry is to be realized, more transport capacity will be required to bring the product to market at peak periods.

There is considerable speculation at the moment as to where future markets might be for the Newfoundland processed fish. If the market is European, then water-borne shipments or air transport will undoubtedly be required. If the market develops as an extension of the present U.S. one, then more truck capacity or containerized shipping will be required to service this market.

Since the location of the processing capacity is scattered throughout the province, the chances of the railway being used as an export mode for the finished product are quite remote. To utilize the railway would require either a substantial program of branch line construction, or an inter-modal transfer arrangement, whereby trucks would take the product from the plant to a suitable rail-head where it would be transferred to rail cars. The added cost for this transfer, plus the longer transit times incurred by the railway, makes the railway an unlikely candidate for transport of fish in the future.

There is, on the other hand, some possibility for the use of containerized ships to service the industry. However, present routes do not include the major destinations of the fish products. Significant route changes and schedules would have to be effected before the marine mode could become a serious

contender for the fish trade. Since present customers of the fishing exporters are geared to accept trucks, it will be difficult for any other mode to compete successfully with this mode.

The recently announced intention of the Provincial Government to construct holding units for the processed product at strategically located centres in the Province, will aid in minimizing the pronounced demand for trucks in the peak season and provide for more stability in the trucking industry. The proposed location of one of these units at Argentia, combined with the large volume of fish originating on the Burin Peninsula, gives rise to the possibility of a successful year-round ferry service between these points and the mainland. This is the subject of further work by the Commission and will be reported on in the second volume of the Commission's report.

In conclusion, the role of the trucking industry and the necessity of a good highway network with adequate ferry facilities are noted as crucial requirements of the fishing industry.

2. The Mining Industry

From a value of production standpoint, mining is the Province's most important resource industry representing 28.7% of the 1976 gross provincial product. The largest and most productive mines are the iron ore developments in Labrador, although significant operations exist on the island portion of the Province. Table 6-4 gives a summary description of the mining industry. Extensive exploration efforts have indicated that there are other significant mineral reserves found in the Province, although many of these are not economically viable at current world prices.

Table 6-4 Summary of Mines and Quarries in Newfoundland—1977

| Mine or Quarry | Location | Type of Ore | Ore Capacity | Shipping | Markets |
|-----------------------------------|------------------|--------------------|--|---|-----------------------------------|
| Iron Ore Company of Canada | Labrador City | Fe | Concentrator 21.8 million tons/yr Pellet Plant 10.3 million tons/yr | QNSLR to Sept Iles | U.S.A. Japan Europe |
| Wabush Mines | Wabush, Labrador | Fe | Concentrator 5.4 million tons/yr | QNSLR to Point-Noire | Canada U.S.A. Europe |
| Newfoundland Zinc Company Limited | Daniel's Hr. | Zn | 1500 tons/day | Directly by sea & road | Canada U.S.A. |
| ASARCO | Buchans | Cu, Pb, Zn, Au, Ag | 1200 tons/day | 37 mile private rail to CN at Millertown | North America Europe |
| Consolidated Rambler Mines | Baie Verte | Cu, Au, Ag | 1500 tons/day | Directly by sea | Murdock- ville, Quebec |
| Advocate Mines | Baie Verte | Asbestos | 5000 tons/day | Directly by sea | N. America Europe |
| Alcan | St. Lawrence | Fluorspar | 1000 tons/day | Directly by sea | Arvida, Quebec |
| Atlantic Gypsum | Flat Bay | Gypsum | 3000 tons/day 8-9 months/yr | Directly by sea & road | 90% U.S.A. 10% Corner Brook |
| Newfoundland Minerals Limited | Manuels | Pyrophyllite | 300 tons/day 8 months/yr | Directly by sea | U.S.A. |
| Dunville Mining Company | Dunville | Silica | 100,000 tons/yr | Directly by road | Long Hr. Nfld. |

The general consensus of opinion is that, while the Province is richly endowed with mineral wealth, a general slackening of demand for metals, combined with the imminent closure of some existing mines, there is little prospect for any major expansion in the industry in the near future. The long term outlook, assuming no major energy crises in the 1980's, is somewhat brighter.

The Province's major hope for development in the mining industry in the near future, lies with the Brinco uranium project at Makkovik. Recent developments have indicated that current market conditions could not justify the magnitude of expenditure necessary to bring this mine into production. It is hoped, however, that by the early to mid-1980's, the demand cycle will have been reversed and the project then will be viable.

As far as transportation requirements are concerned, the development of this project will require massive infrastructure support. Land transport in the form of an all-weather road, or railway, together with harbour developments, will be necessary. When the facilities required to service this project are considered, the case for the Trans Labrador Highway becomes stronger.

At present, the operating mines on the Island transport their products by using trucks to move the ores from mine to tidewater; and ships from port to export market. Except for the upgrading of the Buchan's to Botwood road, as well as the upgrading of the Trans Canada Highway, the existing roads are adequate for the present demands.

Future developments, particularly in the central and southwest portions of the Island, will require extensive road construction. Since the economic viability of these mines is at present under question, the transport infrastructure required to service these is also in doubt. The completion of the Burgeo/Southwest Brook road will provide access to some of these areas.

In Labrador, the iron ore mines are serviced by the Quebec-North-Shore Labrador Railway which is used to bring the ores from Labrador/City Wabush and Schefferville to tidewater at Sept Iles. Although privately owned, this rail operation acts as a common

carrier and, at present, meets the needs of all the operating mines. The line has significant areas of double track to allow for efficient movement on what is basically a high density rail line. Further expansion of the mining industry could be accommodated by a complete double track allowing for one-way operation at all times. At the present time there are no known plans for such expansion.

3. The Forest Industry

The extensive forests within this Province are used to support a pulp and paper industry of considerable size, as well as a significant but largely fragmented lumber industry.

The pulp and paper industry is located at two operating mills, one at Corner Brook and the other at Grand Falls, each with an output capacity of approximately 350,000 tons annually. There is also a non-operating linerboard mill located at Stephenville with a potential capacity of 300,000-350,000 tons per year.

Over the last decade, the industry, on the whole, has been characterized by expansion leading to a general over-capacity, accompanied by depressed markets. At the present time, the low value of the Canadian dollar has helped place our products in a very favourable position on world markets, which again is leading towards a possible expansion of the local industry. The importance of the industry in terms of employment for the period 1969-76 can be seen in Table 6-5.

The transport requirements of this industry are similar in nature to those of the fishing industry, i.e., the requirement to transport raw material to the mills and to transport the finished product to the export market. As this is a rather low value product and one for which there is considerable competition, there is very little latitude in the cost structure. This means that any increase in transport costs could result in loss of portions of the export markets.

As far as the movement of the raw material to the existing mills is concerned, recent years have seen a gradual change from river-drive to rail, and thence to truck transport, with the prime determinant being the location of the timber stands in relation to the mill.

Table 6-5 Employment in Forest Related Industries in Newfoundland, 1969-1976

| | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 ^E |
|-------------------------------------|-------|-------|-------|-------|-------|-------|--------------------|-------------------|
| Pulp & paper employment | 2,747 | 2,823 | 2,568 | 2,341 | 3,151 | 3,326 | 2,903 | 3,000 |
| % of industry | 57.3 | 51.3 | 55.8 | 52.9 | 53.8 | 53.7 | 52.0 | 52.6 |
| Logging employment | 1,925 | 2,439 | 1,778 | 1,881 | 2,404 | 2,579 | 2,500 ^E | 2,500 |
| % of industry | 40.1 | 44.3 | 38.6 | 42.3 | 41.0 | 41.6 | 44.8 | 43.9 |
| Sawmilling employment | 124 | 243 | 255 | 204 | 303 | 291 | 178 | 200 |
| % of industry | 2.6 | 4.4 | 5.5 | 4.6 | 5.2 | 4.7 | 3.2 | 3.5 |
| Total forest related employment | 4,796 | 5,505 | 4,601 | 4,426 | 5,858 | 6,196 | 5,581 | 5,700 |
| % of all goods producing industries | 10.0 | 11.1 | 9.6 | 9.7 | 11.4 | 11.8 | 10.1 | 10.1 |

^E Estimates only

SOURCE: Based on Newfoundland Historical Statistics, Vol. (II) (I), 1977

The map in Figure 6-3 shows the current location of the timber resources within the Province. From interviews conducted by representatives of the Commission, it was determined that, in the case of Grand Falls, all pulpwood is moved from cutting area to the mill *via* the truck mode. This movement is generally short-haul and originates from areas not accessible by rail. Thus, to use any other mode would dictate an inter-modal transfer, and without the benefit of the long-haul cost advantages of either rail or ship, would undoubtedly result in higher total costs.

In the case of the Corner Brook mill, approximately 50% of the incoming product moves by the railway. The longer haul distance places the railway in a more competitive position than as in the case of Grand Falls. However, realignment and transfer of timber holdings between the two mills in recent years has resulted in the harvest being closer to the mills. This has resulted in a shift from rail to truck, as the price structure is lower on the truck mode.

The construction of access roads within timber holdings is the responsibility of the paper companies. However, the existence of a provincial highway close to the cutting area is of prime importance. At present, both companies make extensive use of the Trans Canada Highway and other provincial roads. The low allowable loads compared with high allowable loads on mainland roads, and the general poor condition of the highway, have a serious detrimental effect on the unit costs of pulpwood transport.

Unlike the timber holdings of the Corner Brook and Grand Falls mills, the timber rights available to the Stephenville mill are scattered over the Island and throughout Labrador in areas generally inaccessible by either truck or rail. Although the completion of the Burgeo/Southwest Brook road will open up a considerable timber stand to this mill and should provide for low cost transport to the plant, a major problem will still exist, however, in utilizing timber stands more remote from the mill, particularly in Labrador.

The newsprint business is highly competitive, and while 1977 has brought some significant gains to the two operating mills, the linerboard market has not become sufficiently buoyant to bring about the re-opening of the Stephenville mill. As the industry is highly competitive, any change in the component costs is bound to affect the cost performance of the product on the market. Both paper companies have indicated to the Commission that transport cost poses a serious problem and one to which the final price is extremely sensitive.

Although the transport of pulpwood from cutting areas to the mills forms a major part of the transport problem of the existing newsprint mills, the movement of finished product from plant to export markets is also of major concern.

Price (Newfoundland) Pulp and Paper Limited with major markets in Europe moves its product from Grand Falls to Botwood by truck and then by ship to market. Except for the highway traffic problems, which have already been noted, the use of the marine mode for export has not brought any adverse comments from the paper company.

Bowater (Newfoundland) Limited with markets in the United States and Canada has, in the past, used ships direct from Corner Brook for export movements. Changes in customer demands in recent years have seen a switch from ship to rail for about 20% of the total output. From the public hearings of the Commission there is evidence to indicate that more production would move by the railway if the lower freight rates could be obtained by the paper company.

The present state of the resource, with 1.29 million cunits being harvested of a sustainable yield of 2.05 million cunits, would indicate there is room for substantial expansion in the industry. However, it should be noted that at present cost levels, principally dictated by forest access and cost of transportation, some of the allowable cut cannot be utilized due to economic reasons. Also, because of the highly competitive nature of the industry, it is unlikely that there will be any major expansion in the pulp and paper industry in the near future, although the prospects of the re-opening of the Labrador Linerboard mill are encouraging in the long term.

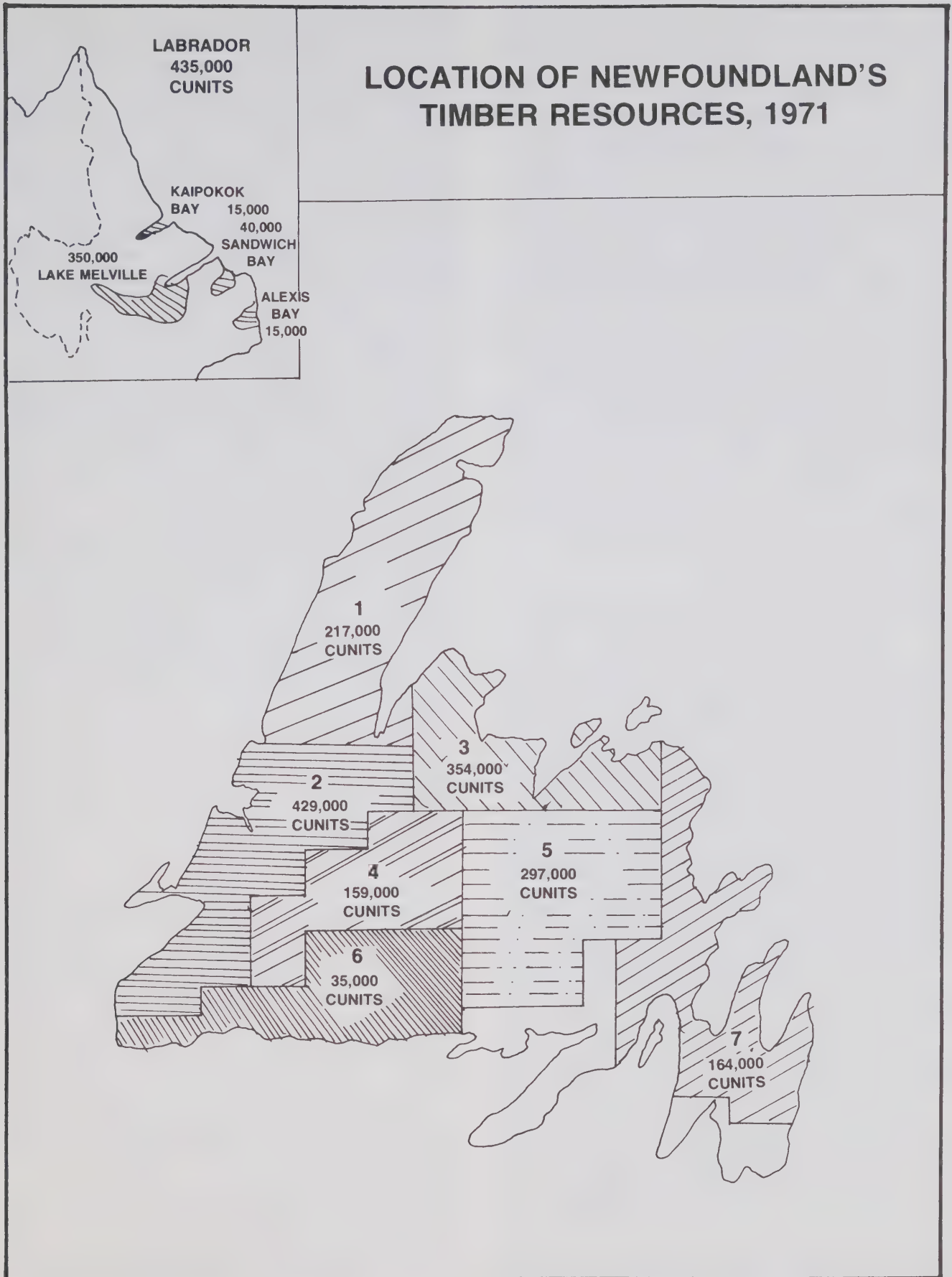
In summation, the chief transport needs of the pulp and paper industries are forest access and a good provincial road system (including the Trans Canada Highway) which would allow the transport of raw materials at the lowest possible costs, and the development of some surface link which would allow the export of products from Corner Brook to the United States markets. The economic feasibility of a rail ferry connection between Corner Brook and the mainland will be explored by the Commission later in the report.

The utilization of Labrador forests for the continued operation of the linerboard mill at Stephenville will require very significant investments in water transport facilities. The limited shipping season and the remoteness of this supply would lead one to believe that the viability of that mill should not be predicated on Labrador wood.

The other forest related industry of major importance from an economic development standpoint is the sawmilling industry.

In 1975 there were approximately 1,400 sawmills producing 28.6 million board feet of lumber in Newfoundland. Of this number, only 60 to 70 can be considered commercial. In fact, it has been estimated that less than 5% of the total mills produce more than half the total output. The industry faces several major problems which inhibit expansion or even viability.

Figure 6-3



The small size of the logs, the limited timber stands available to sawmill operators, the majority of timber stands owned by paper mills, and major technological problems are just some of the difficulties faced by the industry.

As far as transport requirements are concerned, the transport of product from mill to customer is of prime importance. Being a marginal industry which sells to the provincial market without the larger scale of the mainland producers, makes the whole industry highly sensitive to transport costs. The map in Figure 6-3 shows the location of the timber stands. As can be seen, at least two of the major mills are located in areas served by the Coastal Service. Without this subsidized form of transport it is doubtful if these mills could exist.

The future for sawmilling is not bright, unless the whole industry can be integrated with pulp and paper. It is evident that were this done, the viability of the industry could be greatly improved. In this event, the transport requirements would then be co-incident with those of the pulp and paper industry, namely a good provincial highway system which could give good access to the forest resource and could allow for a least cost method of transport of both raw material and finished product.

4. The Electric Power Industry

The electric power industry is the single industry in the Province upon which all other industries are, to varying degrees, dependent. Essentially, electric power controls the future of all industrialization in the Province. In terms of value added, electric power is of considerable importance, but in terms of direct employment, it is of minor value due to the fact that most plants can now be operated either remotely or with a bare minimum of staff.

The growth in the demand for electric power is estimated by Newfoundland & Labrador Hydro to be 8% per annum which will, if continued, result in a load in 1990 three and one half times that of 1975. The key to meeting the expected demand, at least from an economical standpoint, lies in the utilization of the vast hydro potential of Labrador. However, the time frame required to bring this power on stream, even if negotiations between this Province, Churchill Falls (Labrador) Corporation and Hydro Quebec, are favourable, is such that additions to the Island's present capacity will be required. Since the Island's hydro-electric potential is limited to several small-scale developments, it is conceivable that some other form of energy source will be required, even though thermal units are considered unattractive economically and nuclear power is not socially acceptable.

Since power is transported *via* its own facilities and routes, the question of product transport is of no consequence to this Commission. The main transport demand arises in providing access for raw materials

to be delivered to the site during the construction period. On the Island this can be met with some road construction, if the potential site is remote from the highway network. The road can later be used to service the site after the plant goes into production. Generally, power plant construction requires the transport of large volumes of freight and particularly some extremely heavy pieces of equipment. This, of course, is ideally suited to railway carriage. Unless however, there is a branch line of the railway leading to the potential site, it would be very uneconomical to construct new facilities just for this type of project. Since projects of this nature on the Island are likely to be relatively small, transport requirements could be logically handled by a marine/highway combination, whereby goods moving from mainland or from other points could be brought to a suitable harbour near the intended construction site and then moved by highway to their final destination. At this time, neither a schedule nor location of possible Island power sites is known. Therefore, it is not possible to identify particular highway requirements, but due to the limited nature of any possible site, it is not likely that the highway requirements will be great.

The development of Labrador Hydro power, however, will require very significant transportation facilities. A highway from a port on the Labrador coast to the power plant construction site will be required. A highway from Gull Island to the present power plant at Churchill Falls with access to the railhead at Esker will also be needed. This will give added impetus to the need for the completion of the Trans Labrador Highway.

Although the demand for transport facilities will decrease drastically upon completion of any power project, other possible industrial developments located close to the intended power plant will create further demands for an all-weather road in Labrador.

5. The Construction Industry

Construction industry activity is the most important industrial indication of economic performance within the Province. In terms of census value added, it has predominated as the Province's most important industry. In terms of employment, it ranks second to fishing. However, the performance since 1971 has been weak, with a real decline of 32% experienced, compared to a real growth rate of 20% for the Canadian construction industry. The completion of many large projects begun in the 1960's and early 1970's (e.g., Churchill Falls Hydro, Linerboard Mill, Come-by-Chance Oil Refinery) has caused a major decline in construction activity. The energy crisis and world recession of 1974 and 1975 also caused a slowdown in the rate of investment, and a depletion of the investment in equipment and expertise.

While 1977 was expected to be one of the worst years for the industry, the industry is expected to

show slow but steady growth in the long term. The only possibility of a high growth rate would be through oil and gas development, construction associated with Arctic Islands' gas, and resumption of the Gull Island Hydro project.

From a transportation standpoint, existing infrastructure is such that normal growth in the industry could be accommodated without major problems encountered. A sudden increase in construction activity could cause some minor problems at the Gulf, as rail has been used traditionally to move construction materials. The change to truck for some commodities and the existence of excess capacity in the direct marine mode should, however, meet the demands of this industry.

6. *Non-Resource Based Manufacturing Industry*

Non-resource based manufacturing is currently the lowest ranked industry in the Province in terms of census value added. It has never been viewed by the entrepreneur as offering any significant potential. Past Government emphasis in this area has had a low degree of success. There is still, however, a large amount of Federal and Provincial Government interest in the form of grants, loans and guarantees, and employment incentives. Future prospects for secondary manufacturing are difficult to predict due to transport costs for raw materials, distance from markets, lack of appropriate technology and a small local market base. At the present time, Canada's secondary manufacturing industry is experiencing a severe recession and this does not give Newfoundland a great deal of hope in the immediate future. Government encouragement will likely continue. Marine and oil and gas related industries seem the most promising.

Unless there is an exceptionally large increase in the activity of this sector, existing transport facilities have sufficient capacity to meet normal requirements.

7. *The Agricultural Industry*

Agriculture has never been considered an important industry in Newfoundland in economic terms. Since Confederation, there has been a substantial decline in subsistence farming due to improvements in transportation and distribution facilities which have increased the variety of imports at more competitive prices.

Newfoundland's major farming areas are the Codroy Valley, the Humber Valley, the Bonavista Peninsula and the Avalon Peninsula. Most farms are engaged in more than one activity with a single farm producing vegetables and raising some form of livestock.

The Provincial Government estimates that the decline in subsistence farming levelled off in the early 1970's and sees an increase from the 1975 output of \$20 million to \$30 million in 1980-1981, with an

increase in full-time employment (in arable land farming) from 250 to 530, if planned development programmes are successful.

The transport requirements of this industry are relatively minimal compared with other industries. Existing facilities are quite capable of handling the expected demand from the sector. There are two points of concern if the industry is to be given a chance to succeed.

Firstly, since many of the present farms are small business ventures, there is a need for facilities to be available to handle freight in less than carload lots. Although the present arrangement whereby small shipments are carried by express offers some type of service, the high costs associated with such transport add a severe burden to an industry which, at best, is marginal. In the event that LCL rates such as those which existed in previous years are not practical, and there is indication that this is the case, an organized pool car service might prove successful. The initiative for such could come from either the farmers concerned, or from one of the present carriers.

Secondly, there is some question as to whether the present freight rate subsidies which make competing maritime products attractive in the Newfoundland market, should be removed to protect the local industry. This is under review by the Commission and will be included in Volume II of the Commission's report.

8. *The Tourist Industry*

From an economical point of view, tourism and travel have been considered by the Provincial Government to be synonymous in Newfoundland. This is due to the difficulty in obtaining and separating data on tourism in which the major interest lies from an industry point of view.

Tourism is not a major industry in the Province compared to industries discussed in previous sections, but it does have significant transportation implications. In 1975, non-resident tourists are estimated to have spent approximately \$32 million in the Province, an increase from \$20 million. In 1974 it was estimated that between \$105 and \$120 million was spent on tourism and travel by resident and non-resident tourists.¹

Table 6-6 shows the volume of travel into and out of Newfoundland between the years 1969 and 1976 *via* CN Marine and *via* air. Increases in travel *via* CN Marine were quite substantial, approximately 70%, between 1969 and 1975, but since then have started to decline. This decline appears to have continued through 1977. Air travel increased by approximately 52% between 1971 and 1974 but has shown only marginal growth since then. An anticipated large

¹ *Annual Report of the Tourist Services Division*, St. John's. Department of Tourism, March 31, 1976, p. 11

Table 6-6 Travel Into and Out of Newfoundland by Air and Sea, 1969-1976
(Thousands of Persons)

| Year | CN MARINE | | | AIR | | |
|------|-------------------|--------------------|--|-------------------|--------------------|------------------------|
| | Total in per year | Total out per year | Total non-residents out June 1 - Sept. 30 | Total in per year | Total out per year | Total non-residents in |
| 1969 | 105 | 107 | — | — | — | — |
| 1970 | 113 | 112 | — | — | — | — |
| 1971 | 123 | 122 | — | 279 | 285 | — |
| 1972 | 142 | 139 | — | 316 | 324 | — |
| 1973 | 138 | 134 | 73 | 387 | 398 | — |
| 1974 | 158 | 150 | 78 | 425 | 435 | 234 |
| 1975 | 174 | 168 | 81 | 423 | 434 | 243 |
| 1976 | 167 | 164 | 78 | 425 | 435 | — |

SOURCE: Department of Tourism, Province of Newfoundland & Labrador

increase in tourists entering the Province in the summer of 1977 to witness the Canada Summer Games did not materialize.

One important aspect of tourism in Newfoundland is the development of the Provincial and Federal Parks over the past several years. Figures for the development of Provincial Parks and their usage is given in Table 6-7. With a 40% increase in the number of parks and an 85% increase in the total number of camping and picnic sites between 1969 and 1976, there has been a 144% increase in visitors and a 276% increase in camping utilization. Only 15% of these park visitors came from outside of Newfoundland.

Table 6-7 Provincial Parks and Their Use 1969 and 1976

| | 1969 | 1976 |
|----------------------------|-----------|-----------|
| Number of Provincial Parks | 35 | 49 |
| Number of Camp Sites | 959 | 1,841 |
| Number of Picnic Sites | 903 | 1,596 |
| Number of Visitors | 1,192,050 | 2,907,905 |
| Number of Camper Nights | 120,704 | 455,388 |

SOURCE: Department of Tourism,
Province of Newfoundland and Labrador

The Provincial Government estimates that in 1976 there were approximately 9600 persons employed in the travel industry, including tourism. The Province envisages this figure increasing to 11,500 by 1980 with a continuation of the *status quo* in regard to programmes of the Department of Tourism. With certain new initiatives, however, employment by 1980 is expected to increase to 13,225.¹ These initiatives planned to bolster the tourist industry are as follows:

a) A \$2 million per year grant/loan programme to encourage investment in appropriate accommodation facilities at designated locations.

b) Investment of \$4 million per year in historic site development.

c) Expenditure of \$1.5 million per year on park preservation and expansion.

d) The establishment of five regional tourist information centres to encourage travel in rural areas off the Trans Canada Highway. Cost is estimated at \$1 million each.

e) Historic village and museum project in co-operation with the Federal Government in a location yet to be decided but probably near to St. John's.

While there appears to be interesting and challenging prospects ahead for the tourist industry, it cannot be expected to achieve similar importance when compared with the tourist industries of the other Atlantic Provinces. The main impediment is distance from large markets for tourist spending and the cost of travel involved.

Further potential does exist for the expansion of convention business, particularly in the St. John's area although there have been a handful of very large conventions in recent years.² However, the limited concentration in one facility of a large number of guest and meeting rooms mitigates against many potential national conventions.³

From a transportation requirement standpoint the provision of a good, safe all-weather road system which offers easy access to all recreational and tourist facilities, as well as sound ferry systems which offer good access to both the Island and Labrador, are imperative.

The present Trans Canada Highway, with its many deficiencies and its relatively high volumes of trucks, gives a distinct impression of being unsafe. The secondary roads, which are only in the development stage, greatly impede safe movement of traffic. If the industry is to grow, these conditions will have to be rectified. Also, the many problems encountered by passengers in moving across the Gulf during the peak travel season must be overcome.

¹ Task Force on Job Creation, p. 45

² The Canadian Legion Convention in 1975 hosted 2,500 persons, utilizing all hotels in St. John's as well as Memorial University residences.

³ A complete discussion of a convention centre for St. John's may be found in: John Angel, et al, *A Feasibility Study of a Convention Centre for the City of St. John's*, St. John's, St. John's Board of Trade, March, 1976.

Table 6-8 General Freight Traffic to Newfoundland
1,000 Tons

| Year | Rail | % of Total | Truck | % of Total | Total Gulf | % of Total | Shipping | % of Total | Total | Percentage Increase |
|------|------|---------------|-------|---------------|---------------|---------------|----------|---------------|-------|------------------------|
| 1965 | 436 | 71.2 | 2 | 0.3 | 438 | 71.5 | 159 | 28.5 | 612 | 15.7 |
| 1966 | 455 | 68.7 | 3 | 0.4 | 458 | 69.2 | 204 | 30.8 | 662 | 8.2 |
| 1967 | 469 | 72.0 | 4 | 0.6 | 473 | 72.7 | 181 | 27.3 | 651 | 1.7 |
| 1968 | 454 | 68.6 | 8 | 1.2 | 462 | 69.8 | 200 | 30.2 | 662 | 1.7 |
| 1969 | 436 | 66.6 | 14 | 2.1 | 450 | 68.7 | 205 | 31.3 | 655 | 1.1 |
| 1970 | 438 | 66.9 | 18 | 2.7 | 456 | 67.8 | 217 | 32.2 | 673 | 2.7 |
| 1971 | 462 | 60.6 | 53 | 7.0 | 515 | 67.6 | 247 | 32.4 | 762 | 11.1 |
| 1972 | 490 | 56.9 | 82 | 9.5 | 572 | 66.4 | 289 | 33.6 | 861 | 13.0 |
| 1973 | 523 | 57.0 | 122 | 13.3 | 645 | 70.3 | 272 | 29.7 | 917 | 6.5 |
| 1974 | 585 | 59.3 | 139 | 14.1 | 724 | 73.4 | 262 | 26.6 | 986 | 7.5 |
| 1975 | 530 | 52.5 | 201 | 19.9 | 731 | 72.4 | 278 | 27.6 | 1009 | 2.3 |
| 1976 | 409 | 42.0 | 283 | 29.1 | 692 | 71.1 | 281 | 28.9 | 973 | 3.6 |

Forecast of General Freight Traffic to Newfoundland

Over the last twelve years, while there has been a steady growth in the annual total volume of freight to Newfoundland, the rate of growth has not been constant. Rather, the demand has been somewhat cyclical, characterized by periods of high growth followed by periods of positive but low growth as evidenced in Table 6-8. The average annual growth rate for that period was calculated to be 4.9%. On the assumption that growth of the Province's economy and population is likely to be similar for the foreseeable future, a trend line was established to show the growth in general cargo requirements. Modifications to the line were also made to reflect the cyclical nature of the demand in concert with the growth of the provincial economy. This would then produce a doubling of incoming freight by the year 1990, as shown in Table 6-9 and Figure 6-4.

Table 6-9 Estimated General Freight to Newfoundland

| Year | 10 year trend @ 4.9% p.a. | Final Estimates | % yearly change |
|------|------------------------------|-----------------|-----------------|
| 1977 | 1,056,000 | 990,000 | 1.75 |
| 1978 | 1,112,000 | 1,030,000 | 4.0 |
| 1979 | 1,166,000 | 1,135,000 | 10.2 |
| 1980 | 1,223,000 | 1,275,000 | 12.3 |
| 1981 | 1,284,000 | 1,340,000 | 5.1 |
| 1982 | 1,346,000 | 1,444,000 | 7.5 |
| 1983 | 1,412,000 | 1,490,000 | 3.5 |
| 1984 | 1,482,000 | 1,480,000 | -0.7 |
| 1985 | 1,554,000 | 1,515,000 | 2.4 |
| 1986 | 1,630,000 | 1,570,000 | 3.6 |
| 1987 | 1,710,000 | 1,705,000 | 8.6 |
| 1988 | 1,794,000 | 1,800,000 | 5.6 |
| 1989 | 1,882,000 | 1,930,000 | 7.2 |
| 1990 | 1,974,000 | 2,040,000 | 5.7 |
| 1991 | 2,071,000 | 2,110,000 | 3.4 |

Trend line analysis is not a particularly reliable method of traffic forecasting as it fails to take into account the causal relationships between freight demand and those socio-economic factors which give rise to that demand. However, in light of the difficulty

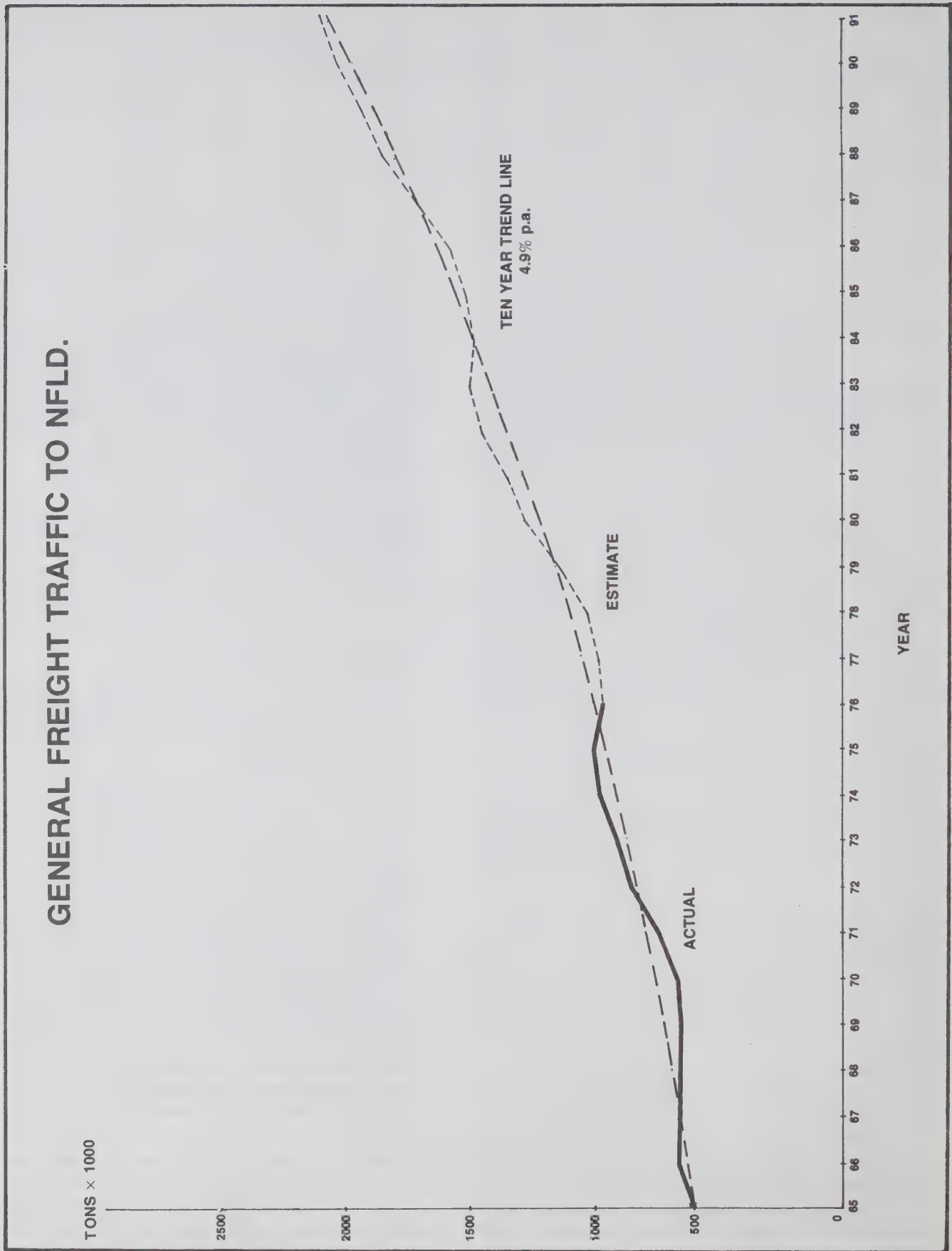
of obtaining reliable base year statistics, it is as accurate as can be readily determined. As a cross check, the Commission's staff attempted to use a multiple linear regression analysis which would predict cargo demand based on the growth of the population and the provincial labour force. It is interesting to note that this method correlated very well with the established trend line.

At the present time, the incoming freight can be classified as that of Maritime origin representing 30% of the total and non-Maritime origin representing 70%. On the assumption that this proportion is likely to be maintained in the near future, several conclusions and assumptions can be made regarding mode utilization and transport requirements over the planning periods. These are:

1. Since the major marine carriers operate between Montreal and the Island, it is highly unlikely that Maritime originating traffic will in future be moved *via* these carriers.
2. Trucking, for long-haul distances, is likely to decline in importance as fuel costs continue to increase. The portion of freight by truck from non-Maritime origins is not likely to grow appreciably.
3. Conversely, on the shorter routes from Maritime origins trucking will continue to grow in importance but that rate of growth will shortly decrease due to (a) limited back-haul opportunity and (b) competition from Newfoundland Container Lines.
4. Rail traffic will continue to decline because of (a) competition from truck for the Maritime freight and (b) competition from Newfoundland Steamships Limited and Chimo Shipping for the non-Maritime freight. This will be due to the fact that the marine mode can move freight more quickly, at less cost and with more reliability than rail.

Although the importance of rail in relation to other modes as a mover of general cargo is likely to diminish over the next decade, it is highly unlikely that the demand for rail services will disappear. The investment in railway sidings and some customer preference for the rail will ensure some utilization of this

Figure 6-4



mode. The total vessel capacity of all the existing rail ferries is approximately 600,000 tons annually. Because of the high cost of operation of these ferries, it might be advisable to establish an operating strategy which would see one vessel fully utilized at approximately 300,000 tons rather than having two vessels under-utilized at 600,000 tons (Table 6-10).

Table 6-10 Projected Freight Traffic to Newfoundland by Mode with Rail Freight Restricted to 300,000 tons Per Year.

| Year | Total | (x 1,000 tons) | | Rail |
|------|-------|----------------|----------|------|
| | | Truck | Shipping | |
| 1978 | 1,030 | 395 | 335 | 300 |
| 1979 | 1,135 | 465 | 370 | 300 |
| 1980 | 1,275 | 550 | 425 | 300 |
| 1981 | 1,340 | 601 | 439 | 300 |
| 1982 | 1,440 | 668 | 472 | 300 |
| 1983 | 1,490 | 711 | 479 | 300 |
| 1984 | 1,480 | 726 | 454 | 300 |
| 1985 | 1,515 | 756 | 459 | 300 |
| 1986 | 1,570 | 807 | 463 | 300 |
| 1987 | 1,705 | 888 | 517 | 300 |
| 1988 | 1,800 | 951 | 549 | 300 |
| 1989 | 1,930 | 1,029 | 601 | 300 |
| 1990 | 2,040 | 1,097 | 643 | 300 |
| 1991 | 2,110 | 1,148 | 662 | 300 |

Under these assumptions, the general cargo demand by mode was estimated and is presented in Table 6-11. If there were no restrictions placed on rail traffic, it is doubtful if the traffic would build up to a point where 600,000 tons would be exceeded and a third rail car ferry required.

Table 6-11 Projection of General Freight to Newfoundland (1,000 tons)

| Year | Total Tons | Truck | Shipping | Rail |
|------|------------|-------|----------|------|
| 1977 | 990 | 319 | 293 | 378 |
| 1978 | 1,030 | 370 | 306 | 354 |
| 1979 | 1,135 | 421 | 319 | 395 |
| 1980 | 1,275 | 472 | 333 | 470 |
| 1981 | 1,340 | 523 | 347 | 470 |
| 1982 | 1,440 | 574 | 362 | 504 |
| 1983 | 1,490 | 625 | 377 | 488 |
| 1984 | 1,480 | 676 | 394 | 410 |
| 1985 | 1,515 | 727 | 410 | 364 |
| 1986 | 1,570 | 778 | 428 | 364 |
| 1987 | 1,705 | 829 | 447 | 429 |
| 1988 | 1,800 | 880 | 466 | 454 |
| 1989 | 1,930 | 931 | 486 | 513 |
| 1990 | 2,040 | 982 | 507 | 551 |
| 1991 | 2,110 | 1,034 | 528 | 548 |

In any event, the amount of truck traffic to the Province is not likely to be drastically affected by rail strategies. On the other hand the direct shipping services of Chimo Shipping and Newfoundland Steamships Limited will be greatly affected. Present expansion plans of both companies are geared to meet the increase expected through normal growth. Accelerated growth brought about by a diversion of

freight from rail to ship will require new vessel capacity by the mid-1980's.

Although truck traffic growth rate is expected to taper off over the next five years, and although a change in the operation of rail would result in only a modest increase in truck growth, a critical point to consider will be ferry requirements on the Gulf to accommodate truck traffic.

On the assumption that trucks will continue to be carried on the passenger vessels as is now the case, the Commission investigated vessel requirements for the month of July for each year within the planning period.

Gulf Ferry Requirements

Approximately 70% of all general freight traffic to the Island of Newfoundland moves on the ferries operated by CN Marine between North Sydney, Nova Scotia and Port aux Basques. These ferries carry passengers including tourists, and all forms of vehicular traffic, from motorcycles and cars to tractor trailers and railcars. During the 1977 peak months of July and August, two railcar ferries and three auto-truck ferries operated up to six one-way trips per day. The railcar ferries also carry tractor trailers or trailers if there is space available when required.

The number of ferries on this service must be geared to handle the traffic expected with a reasonable degree of efficiency. A prediction as to the number of ferries required and the dates when the fleet should be increased has been carried out by estimating the number of auto-equivalents to be carried on a design day and comparing the auto-equivalents provided on the ferries. A ferry such as the 'Marine Atlantica' can carry approximately 290 auto-equivalents on one sailing. CN Marine uses the following values of auto-equivalents for different vehicle types:

| | |
|-----------------|-----|
| Auto | 1.0 |
| Straight Truck | 3.0 |
| Tractor Trailer | 6.0 |
| Trailer only | 5.0 |

This means that one straight truck consumes as much space as three cars while a tractor trailer consumes the equivalent space of six cars. Three components were therefore estimated, 1) the passenger related vehicle auto-equivalents, 2) truck auto-equivalents, and 3) anticipated railcars carried to the Island.

The estimated design day (average of six highest days) in 1976 and 1977 were 897 and 951 auto-equivalents respectively. At present, the ferries can handle 1160 auto-equivalents per day with four sailings per day. It is estimated that the design day auto-equivalents to Port aux Basques for the years 1978 to 1991 will be as shown (based on forecasts of passenger related vehicles and trucks) in Table 6-12.

Table 6-12

| Year | Estimated Design Day | | Total Auto-Equivalents |
|------|--|------------------------|------------------------|
| | Passenger Related Vehicle Auto-Equivalents | Truck Auto-Equivalents | |
| 1978 | 696 | 389 | 1,085 |
| 1979 | 729 | 404 | 1,133 |
| 1980 | 762 | 492 | 1,254 |
| 1981 | 792 | 544 | 1,336 |
| 1982 | 825 | 595 | 1,420 |
| 1983 | 856 | 647 | 1,503 |
| 1984 | 888 | 698 | 1,586 |
| 1985 | 919 | 750 | 1,669 |
| 1986 | 952 | 801 | 1,753 |
| 1987 | 985 | 853 | 1,838 |
| 1988 | 1,015 | 905 | 1,920 |
| 1989 | 1,048 | 957 | 2,005 |
| 1990 | 1,078 | 1,009 | 2,087 |
| 1991 | 1,111 | 1,061 | 2,172 |

It was also found that in July, 1977, there was still ample space on the auto ferries to carry more passenger related vehicles or trucks and on only two days did the total truck auto-equivalents carried on all vessels exceed the truck space available on the auto ferries. (This is shown in Figure 6-5.)

The future ferry requirements were analyzed for, three conditions, these being, 1) normal growth (no restrictions on ferries with three auto ferries and two railcar ferries in service), 2) normal growth (but rail freight limited to 400,000 tons), and 3) rail freight limited to 300,000 tons/year (with only one railcar ferry in service).

Under condition 1, estimates were made of the auto-equivalents available to trucks on the railcar ferries after rail freight was accommodated. It is to be appreciated that no accurate assessment could be made of railcar traffic during July and August, but Table 6-13 shows the estimated number of auto-equivalents available to trucks on the railcar ferries by assuming that previous monthly variations in railcar traffic will still be valid.

Table 6-13 Estimated Design Day Auto-Equivalents Available to Trucks on Trailcar Ferries (Two Railcar Ferries in Service).

| | |
|------|-----|
| 1978 | 168 |
| 1979 | 147 |
| 1980 | 107 |
| 1981 | 107 |
| 1982 | 93 |
| 1983 | 98 |
| 1984 | 142 |
| 1985 | 162 |
| 1986 | 162 |
| 1987 | 132 |
| 1988 | 117 |
| 1989 | 88 |
| 1990 | 68 |
| 1991 | 68 |

The effect of the extra auto-equivalents on the railcar ferries is to raise the total available auto-

equivalents on the design day by the amounts in Table 6-13, and thus extend the time when extra sailings or vessels are required. Figure 6-6 shows the estimated capacity and demand for condition 1. This shows that another trip per day or vessel will be required in 1981 and another in 1985.

Under condition 2, the loss or removal of one railcar ferry would thus eliminate the additional space available to trucks as shown in Table 6-13. This will probably be the case in 1978 as the railcar vessel '*Sir Robert Bond*' is being modified to operate on the Lewisporte-Goose Bay service in July and August. If no additional replacement for this vessel occurs, i.e., only one railcar ferry is in service, then the overall capacity in auto-equivalents will be lessened to the capacity of the auto ferries only. The demand and capacity under condition 2 is shown in Figure 6-7. This chart shows that another trip per day or vessel will be required in 1980 and another in 1983. (It has been assumed that the rail freight can be accommodated totally by the one remaining railcar ferry or in conjunction with other vessels.)

Condition 3 stipulates a restriction on rail freight of 300,000 tons per year with the remaining traffic that rail would have carried being shared by trucking and shipping as in Table 6-14. It also assumes that there will be no constraint on trucking due to the type and number of vessels operated and that the trucking industry can handle the extra freight. Table 6-15 shows the effect on the number of auto-equivalents to be carried under this restriction on rail freight.

Table 6-14 Additional Trips per Design Day* Over 1977 Schedule

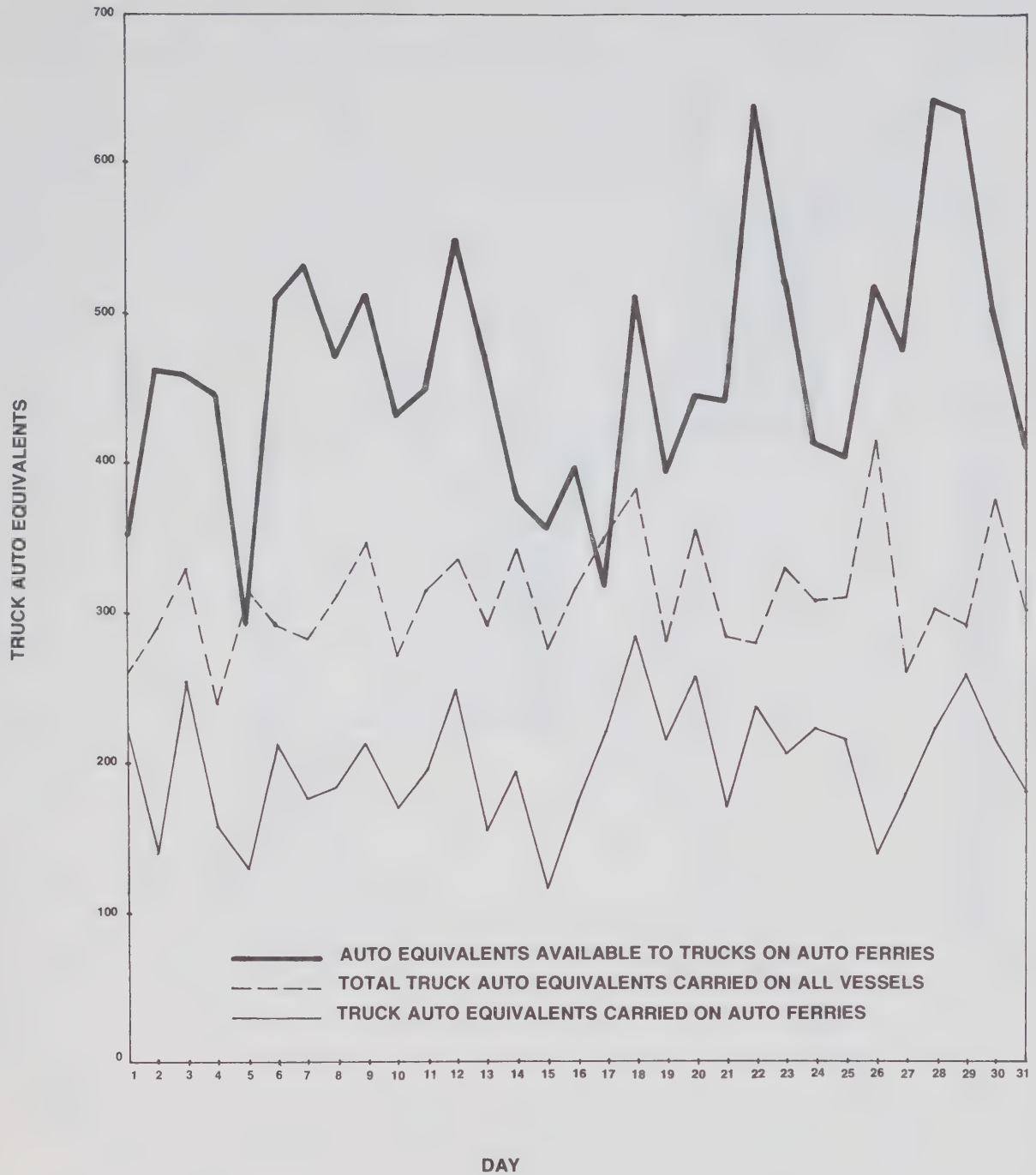
| | Year | | | | | | | | | | |
|-------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | '78 | '79 | '80 | '81 | '82 | '83 | '84 | '85 | '86 | '87 | '88 |
| Condition 1 | — | — | — | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 |
| Condition 2 | — | — | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 |
| Condition 3 | — | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |

Table 6-15 Design Day Auto-Equivalents When Rail Freight is Restricted to 300,000 Tons Per Year

| Year | Auto-Equivalent Demand Under Condition (1) | Extra Auto-Equivalents Due to Rail Freight Restriction | Total Design Day Auto-Equivalents |
|------|--|--|-----------------------------------|
| 1978 | 1,085 | 48 | 1,133 |
| 1979 | 1,133 | 51 | 1,184 |
| 1980 | 1,254 | 111 | 1,365 |
| 1981 | 1,336 | 113 | 1,449 |
| 1982 | 1,420 | 134 | 1,554 |
| 1983 | 1,503 | 128 | 1,631 |
| 1984 | 1,586 | 93 | 1,679 |
| 1985 | 1,669 | 73 | 1,742 |
| 1986 | 1,753 | 76 | 1,829 |
| 1987 | 1,838 | 111 | 1,949 |
| 1988 | 1,920 | 126 | 2,046 |
| 1989 | 2,005 | 158 | 2,163 |
| 1990 | 2,087 | 179 | 2,266 |
| 1991 | 2,172 | 180 | 2,352 |

Figure 6-5

TRUCK AUTO EQUIVALENTS — JULY 1977*



* NORTH SYDNEY — PORT AUX BASQUES SERVICE

SOURCE: CN MARINE

Figure 6-6

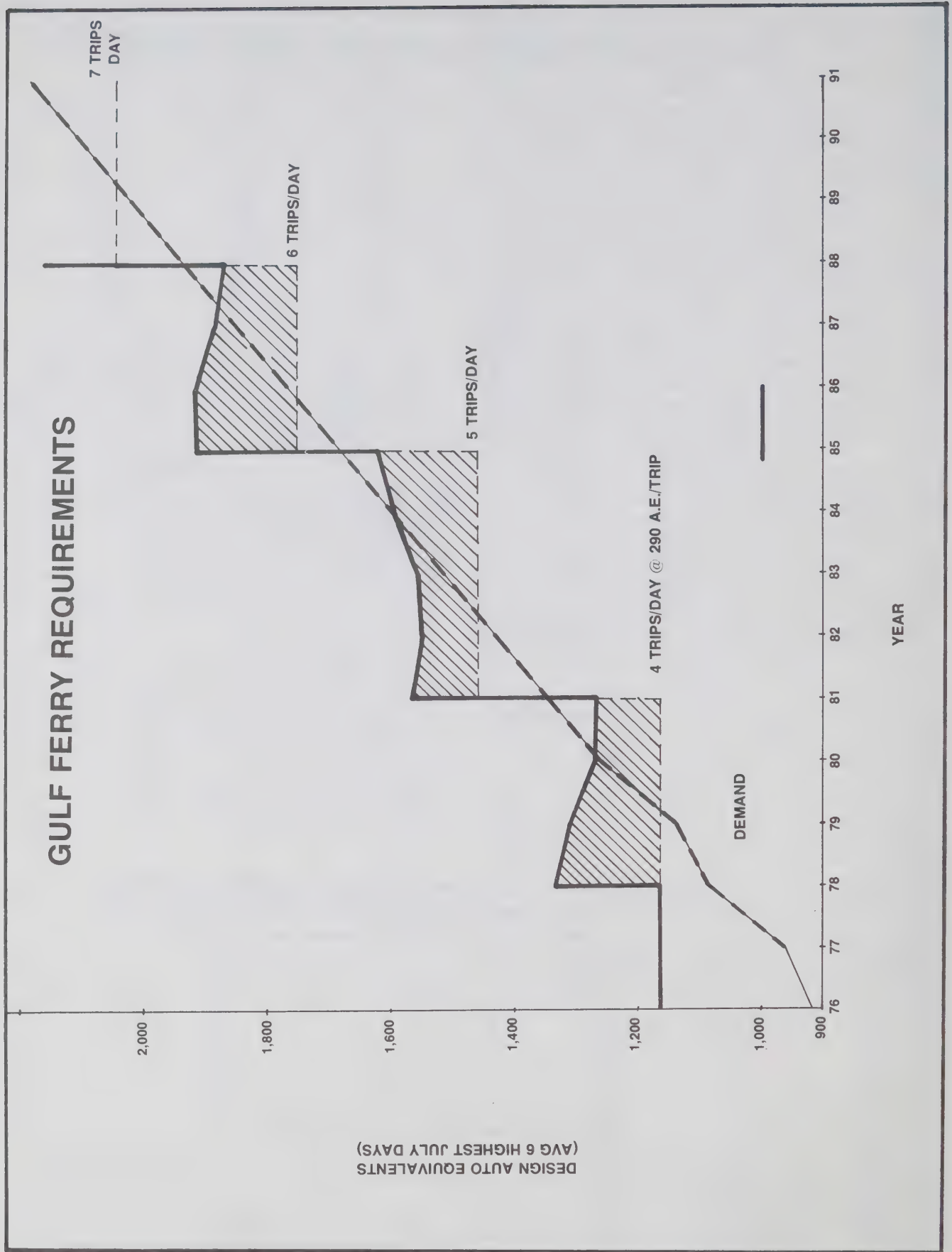


Figure 6-7

GULF FERRY REQUIREMENTS — CONDITION 2

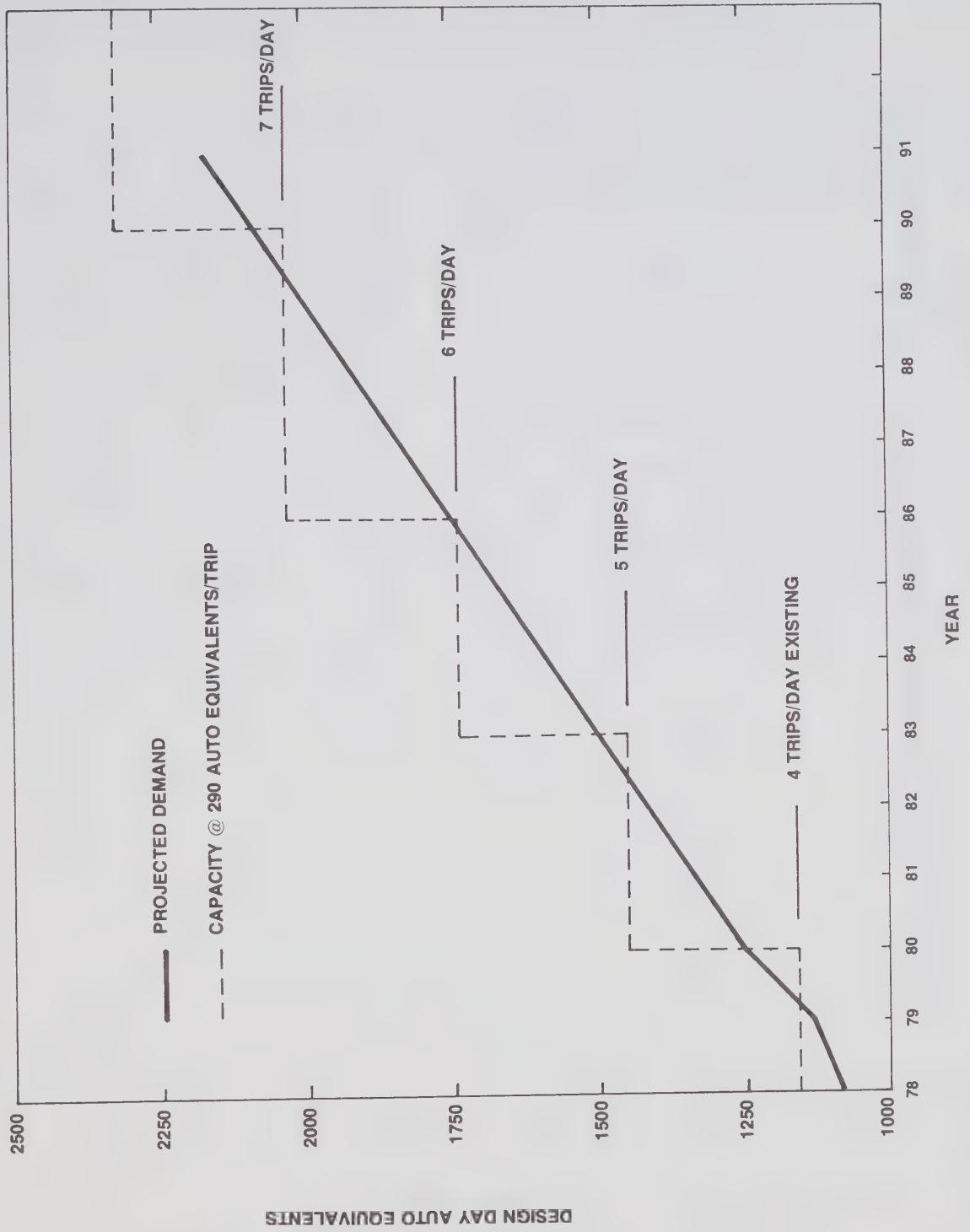


Figure 6-8

GULF FERRY REQUIREMENTS — CONDITION 3

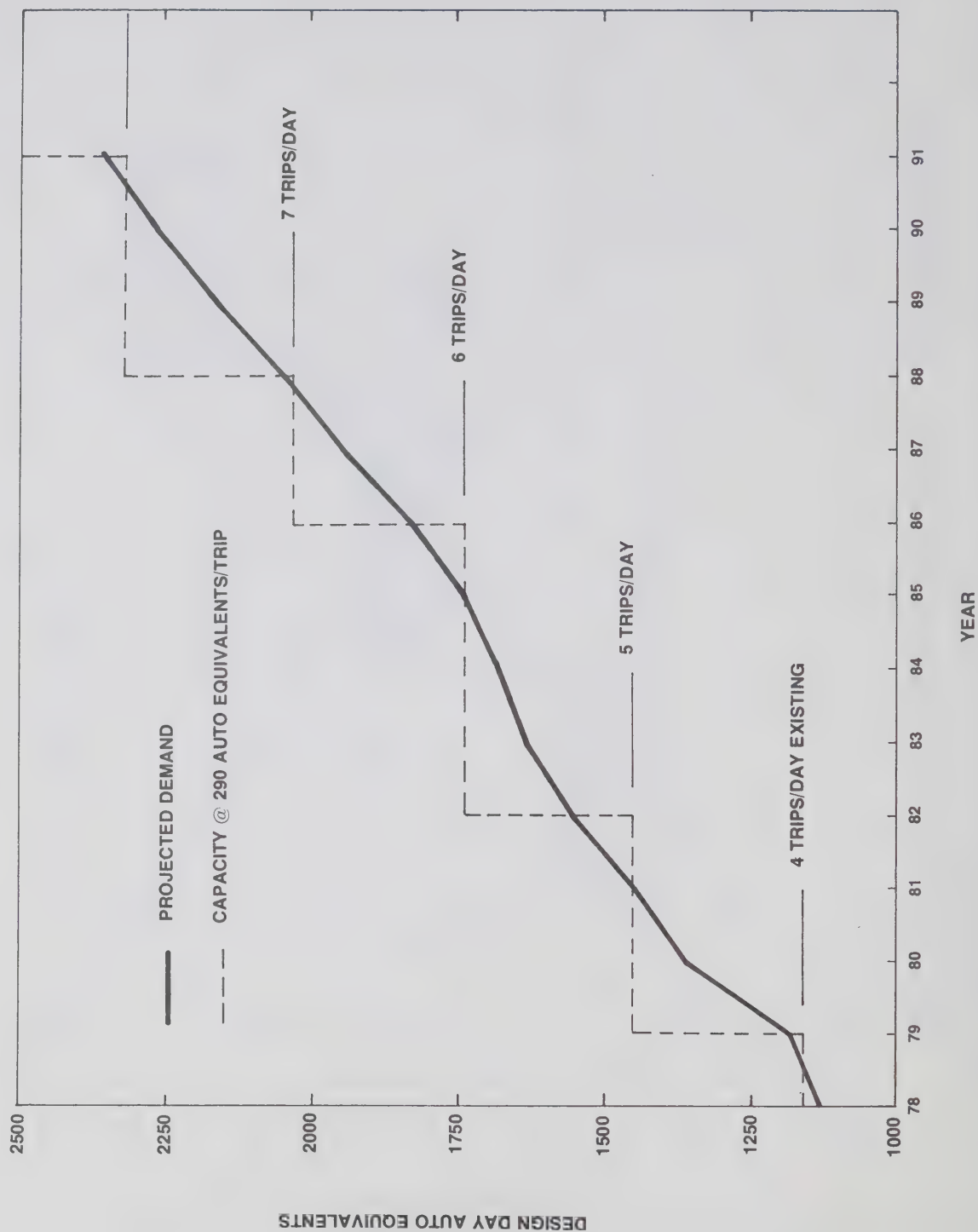


Figure 6-8 shows the results of demand and capacity under condition 3. As a result, there would be demand for another trip per day (or vessel) in 1979, another in 1982, 1985, etc., as shown in Table 6-15.

The effect on the supply of trips per day (or vessels) by each of the conditions, is shown in Table 6-14.

In conclusion, the loss of one railcar ferry in 1978, should pose some capacity problems in 1979 and will require another trip per day (or vessel) by 1980 (over the present four trips per day) on peak days.

Some Conclusions

The future transport needs must be provided by a system which has enough flexibility to meet the demands of industry, goods movement, and passenger travel as efficiently as possible bearing in mind the costs of operation and subsidization if necessary.

A review of the industrial prospects points out some areas where additional or modified infrastructure will be required. The prime requirement will be a highway system capable of serving the resource based industries and, in particular, the fishing industry. Some secondary roads will have to be improved (i.e., upgraded and/or paved) in order to facilitate the movement of fish between plants. The Trans Canada Highway will need improvement in order to expedite the marketing of the finished products with the least possible damage and delay. Coupled with the highway system, the Gulf ferry system will have to minimize waiting and crossing time in order to give the producers the required efficient access to mainland markets. Obviously, as emphasis will continue to be placed on the export market, there must be equipment capable of handling the exported product. This

will mean, for example, that there will have to be more or larger reefer trucks available for exporting frozen fish.

The increases in traffic demand and present sub-standard sections of highways will necessitate the upgrading of the Trans Canada Highway and some collector roads. This will be vital to the provision of a safe, efficient, and comfortable surface passenger system. (Over 90% of all passenger trips in Newfoundland are on the highway system.)

Notwithstanding the Island portion of the Province, the economic development of Labrador will be largely dependent on the proposed Trans Labrador Highway. The impact of this highway on the Province and Canada is of such importance that this highway must be built.

Demands on the Island rail network are not projected to change very much as there will not likely be new industry which could take advantage of the railway for transporting raw or finished products. There is potential for exporting Bowater newsprint by rail to the mainland, provided it can be done more economically and/or more efficiently than at present.

As aforementioned, the Gulf ferry system will have to minimize waiting time for crucial exports, time-dependent products. The fishing industry must have access to the mainland markets if it is to be the prime resource industry in the Province. The ferries will also have to accommodate the expected passenger related traffic in an efficient, comfortable and affordable manner, in order to enhance the prospects for the tourist industry.

Chapter VII

Towards a Transportation Policy For Newfoundland

The title of this chapter is "Towards a Transportation Policy for Newfoundland" and not "A Transportation Policy for Newfoundland" as it might well have been had the Commission started with a clean slate. But the slate is not clean; whatever is now proposed must be cast in a form that can be accommodated to the exigencies of an already existing transportation network, that will recognize specific principles that are generally accepted and that will be adaptable to established procedures that, in the interests of an orderly transition to a new system, ought not to be suddenly disrupted.

If a comprehensive transportation policy for Newfoundland had been implemented fifty, or even thirty years ago, much of the existing network and many of the now accepted practices and procedures would not exist. But such was not the case and the Commission must now operate within the context of constraints imposed by the consequences of piecemeal *ad hoc* growth. We cannot even attempt to produce recommendations that will eliminate in one stroke all of the unfortunate results flowing from the lack of proper planning in the past. For even if the Commission were so foolhardy as to make such recommendations, their implementation would be clearly impracticable because of the severe disruptions and repercussions that would follow upon sudden change. Rather, recommendations must be aimed at the prevention of major mistakes in the future and a gradual but planned evolution towards a rational and a socially and economically functional system.

The Commission will attempt, therefore, to indicate the general direction in which transportation policy should develop and to formulate general principles upon which such a policy should be based. Specific

recommendations will, insofar as is practicable, flow from that policy and those principles. Nevertheless, some recommendations, especially those with short term application, may suggest some slight inconsistency reflecting the necessity to compromise with the realities of the present situation. Over time, the Commission believes it will be possible to eliminate such inconsistencies and anomalies as are now unavoidable and to establish practices and procedures throughout the entire system that will be completely compatible with the new policy regime. In the meantime, the Commission should aim to develop clear directions for policy development and to ensure that all major decisions will be in keeping with this emerging policy.

Having established what the Commission conceives to be an acceptable rationale for the use of the word "towards" in the title, the remainder of this chapter will be devoted to a discussion of the objectives which the Commission considers to be relevant and important in formulating a general policy, the constraints which the present system imposes, the principles which must guide the transition from the present situation to that of the future, and a brief and speculative look at what the future may have in store.

Even though the Commission has argued that no comprehensive transportation policy has been implemented in Newfoundland, it is not suggested that no attempts have been made to enunciate the principles upon which such a policy might have been based. In this context two particularly significant documents must be noted:

1. *The Basic Elements of an Atlantic Provinces Transportation Policy* (March, 1969) and

2. *An Atlantic Provinces Transportation Policy — Principles and Recommendations* (April, 1975).

The Commission regards both statements as being of great importance. It is the last, nevertheless, which, incorporating all the basic concepts of the earlier formulation and modifying and enlarging upon some of them, represents the more comprehensive approach. It established the principles upon which an Atlantic Provinces transportation policy might be based in the following terms:

1. Transportation is an essential but not sufficient element in economic development. It is a means to an end. While an efficient transportation system will not guarantee economic expansion, the lack of such a system will retard development.
2. Transportation is, as it has been since Confederation, a vital element in the ability of regional industries to reach Canadian and world markets.
3. The National Policy of protective tariffs introduced by the Federal Government after Confederation, and promoted by all succeeding Federal Governments, resulted in a severe limitation on the ability of the Atlantic Provinces to exploit the vast potential markets of the United States. The natural north-south trade routes that had been developed by the region were replaced by an artificial east-west trade pattern. A new Transportation Policy must compensate for this unnatural restriction.
4. The responsibility of the Federal Government to ensure that transportation costs will permit regional industries an opportunity to participate fully in the economic growth of Canada was unanimously accepted in the discussions that preceded Confederation and in the discussions that preceded the entry of Prince Edward Island and Newfoundland and Labrador into Confederation. This principle is legally recognized in The Maritime Freight Rates Act and must continue to be so recognized.
5. The implementation of a national transportation policy for the Atlantic Provinces will require an effective combination of competition, regulation and financial assistance. In the long run, if this policy is effective, regulations and financial assistance should, to some extent, diminish.
6. It has been demonstrated that the present National Transportation Act, which dictates that competition will ensure realistic transportation costs, is only effective and equitable in those regions of Canada which have a well developed, mature transportation system with a high level of modal and intermodal competition. This is not the case in the Atlantic region where there is limited competition, lack of facilities, a low volume of traffic, and long distances which are sparsely populated. In the development of a new Transportation Policy, the degree of maturity of the transportation system, and the level of modal and intermodal competition,

must be considered on a regional basis. A policy of a blend of regulation, infrastructure cost support, rate subsidies, variable percentage recovery of user charges, and other forms of assistance must be developed to fit that particular region.

7. While freight rate levels are of themselves of considerable concern to the Atlantic Provinces, other elements of the transportation system including service levels, transportation systems capacity, and capital investment in the transportation system, are of equal concern and have a significant impact on providing an effective Atlantic Provinces transportation system. These elements must be co-ordinated between the Federal and Provincial Governments so that provincial development aspirations can be fully considered.

8. To whatever degree transportation is regulated, the designated regulatory agencies must be responsive, and accessible. These agencies should be decentralized to the regions so that fast action can be obtained.

9. The ferry services between the mainland and the island provinces are essential services and cannot suffer any disruption.

The Commission accepts in general those principles and it is within the framework provided by them that specific applications will be worked out appropriate to Newfoundland and Labrador. However the Commission has some reservation regarding the third principle as we are of the opinion that an adjustment in the tariffs may be a better tool to exploit the United States markets and might be of much greater benefit to Newfoundland than a transportation subsidy on goods shipped to the central and western Canadian markets. Before we turn to specifics, however, the desirable objectives must be enunciated. In stating those objectives the Commission must remain fully conscious of Newfoundland's particular circumstances and needs but cognizant, at the same time, of the necessity for compatibility with Canada's transportation policies.

It is the view of this Commission that the following represents an appropriate set of objectives towards which our efforts should be directed.

1. *To eliminate, insofar as possible, the defects and weaknesses of the present system.*

There are, as Chapter V clearly shows, many existing faults and deficiencies in the Newfoundland transportation system. As examples may be mentioned the present state of deterioration of the Trans Canada Highway; and the high incidence of claims for loss and damage on the CN coastal service. The list of inadequacies is long and although some may be eliminated with relative ease over the short term, others will require careful planning over a longer period. In any case, it is imperative that as a transportation

policy for Newfoundland is developed, all existing deficiencies must be identified and, insofar as is practicable eliminated.

2. To provide at least one reliable and reasonably priced method of passenger and freight service for each community in Newfoundland.

The Commission recognizes the special problems posed by Newfoundland's settlement pattern. Nevertheless, under present-day circumstances, it is not unreasonable that all communities should expect to have access to a reasonably priced and convenient means of passenger and freight transportation. Not every community should, of course, expect daily air service, nor should an ice-bound coastal community reasonably expect even a weekly sea service, but all communities should expect to have their reasonable needs met and their reasonable expectations fulfilled. The coastal communities of Labrador, for example, should be able to rely upon receiving freight on schedule and in good condition *via* the Coastal Service during the months of ice-free navigation. At the same time provision should be made to warehouse supplies of the winter freeze-up. Residents should also assume responsibility for informing themselves of the modes of transport available to them and for adapting their demands to the necessities of the best schedules that can be implemented. A programme of amelioration and of development should be evolved in consultation with the people primarily affected, and implemented in an orderly manner over as short a period of time as is consistent with thoroughness, efficiency, and practicality.

3. To encourage by all practical means competition between and among modes and carriers.

There is no question but that competition provides a strong element of market control. If, for example, two separate trucking firms carry goods between the same two points, the firm providing the best service, in terms of reliability, speed and cost will, in time, receive the larger portion of the traffic offered. This, in turn, should encourage the other firm to improve its service. However, in Newfoundland the total amount of traffic offering is relatively small and there may not always be, in all areas, sufficient volume to warrant competition among several modes of transportation. In fact, many areas will be served by only one mode because it would clearly be uneconomic to provide alternatives. In circumstances where, for example, hitherto isolated coastal villages are linked to the road network, it is neither logical nor economically practical to continue a highly subsidized coastal boat service in competition with the trucking industry. As a principle, it may be stated therefore, that when roads are built to an area, the service heretofore provided by the coastal boats should be terminated. Such situations are clearly exceptions to the general rule.

Whenever the population is sufficient to require more than one mode, competition should be encouraged and fostered.

4. To provide the best possible service at the lowest possible cost.

The transportation system that is developed must give the greatest possible value for the dollars spent, which is to say that we must aim for the system which is most cost effective. This does not mean that we should aspire to the system that is cheapest but rather that we cannot ignore costs and must consciously strive to get the best value for what we spend. Thus, when considering alternative modes and services, it must first be determined which will provide the level and type of service that is required and the one which is most economical must be selected. In short, economy is not the primary reason for selecting a mode of transport but it becomes highly significant when other conditions have been met.

5. To provide for maximum co-operation and co-ordination between complementary services.

The principal modes of transport are rail, road, sea and air, and a thoroughly efficient transportation system will provide for interconnections among them whenever the possibility exists and is economically practicable. To achieve this objective there must be maximum co-operation both on an intermodal and on an intra-modal basis. For example, passengers disembarking from a Gulf ferry should be able to make close connections with a CN Roadcruiser. Similarly, off-corridor bus service schedules should be closely co-ordinated with schedules on the main corridor routes. The same principle of co-operation and co-ordination should apply equally to freight transfer. Consider, for example, a package destined to move between Renews and Roddickton. In a fully developed and integrated system, a regional carrier would collect the package at Renews and take it to a central depot at St. John's where it would be transferred to another carrier operating on the main provincial corridor. He would take the package to Deer Lake, where it would be again transferred to another regional carrier who would finally deliver it to Roddickton. The more complicated sequence of transfers for freight may take several years to develop, but a simpler passenger transfer system should be introduced in the immediate future since it requires careful planning rather than large capital outlay.

6. To provide maximum flexibility to adapt to change.

While it is often difficult to make successful predictions of future needs and trends, careful priority planning can often prevent the necessity for costly remedial action. Consider, for example, the case of ribbon developments along highways. It is almost

inevitable that where such developments occur, the main highway will have to be widened or feeder roads will have to be constructed. This is at a time when property values will have escalated and expropriation of land will have become excessively expensive and time consuming and when, in all probability, the best result that can be achieved will be but a makeshift adaptation to circumstances. The alternative procedure of first developing a set of regulations respecting orderly development and then implementing those regulations would be both simple and inexpensive and would obviate the sort of difficulty which has been mentioned. Thus, proper plans for a transport system must be developed in relation to other developmental activities and must proceed in carefully controlled stages. The first stage would be a decision to move in a general direction, though planning at this stage should not be so rigid that all developments would be locked into an inevitable sequence of action. Rather, initial planning should leave sufficient flexibility for subsequent examination and reconsideration. In brief, options should be kept open as long as possible; final and definite plans should not be made until they are absolutely necessary and only after all relevant data have been gathered and evaluated and all eventualities, within reason, foreseen and considered.

7. To maximize the effectiveness of subsidies.

Subsidies of various forms are introduced in an attempt to deal with specific problems. It often happens that the subsidy fails to accomplish the desired end but, nevertheless, is continued because, over time, it has acquired the entrenched status of a "right" that can be neither reduced nor eliminated. The use of subsidies and their actual effects should, therefore, be examined carefully and frequently so that wherever desired effects are not being achieved, appropriate action can be taken before the subsidy attains hallowed old age. The question of subsidies is considered in more detail in Chapter X.

8. To maximize opportunities for the economic development of the Province and to provide adequately for Newfoundland's probable future transportation needs.

Transportation policy has long been recognized as a tool of national policy in Canada. Accordingly, in 1967, when much of the transportation infrastructure was in place in mainland Canada, The National Transportation Act outlined the policy of "user-pay" and "economic viability". Newfoundland is in a much more premature stage of economic development and rationalization of its transportation infrastructure has yet to take place. As outlined above, areas which need transportation facilities must be carefully identified within the framework of economic development and future needs must be determined in a planned and orderly manner, rather than on an *ad hoc* basis

as has been the case in the past. The Federal Department of Regional Economic Expansion has recently been of great assistance in this area and it is to be hoped that this assistance will continue.

In addition to the basic objectives listed above, the Commission has identified four other factors which are of sufficient importance to be given very careful consideration when policies for transportation are formulated. These are as follows:

1. *The use of fuel.* Increasingly, concern is being expressed about the rate at which transport systems consume fossil fuels. Undoubtedly this will continue to be a serious problem for some time to come. In consequence, it is important to aim toward reducing fuel consumption as much as possible. Other things being equal, then, the mode of transport which uses the least fuel should be selected.

2. *User satisfaction.* It is clearly impossible to provide complete satisfaction to everyone with respect to the transportation services and facilities that can be provided. Some people will sometimes have to accept circumstances that are less than totally desirable. Nonetheless, whenever possible, the wishes and desires of individuals regarding comfort and convenience should be given careful consideration. Other things being equal, those modes which provide the highest degree of perceived user satisfaction should be implemented.

3. *Employment.* Providing a high level of employment is not, in itself, a goal of the transportation system. If a good transportation system requires the work of a large number of people, then that condition will, of course, be accepted as an added blessing. If, however, a good method of transportation requires fewer workers, then that method should be selected. The preservation of an inefficient and out-moded system cannot be rationalized simply because it provides jobs. Employment and transportation are entirely different problems and even though increased employment is a desirable consideration, it cannot be achieved at the expense of the kind of economic and efficient system that will serve the interests of the total population. Nevertheless, other things being equal, those methods which can, without detriment, produce the highest level of employment, should be selected.

4. *Speed, safety and reliability.* It goes without saying that speed, safety and reliability are major considerations which must be kept in mind when decisions concerning transportation are being made. With respect to passenger services, speed and safety are of the utmost importance, but in the matter of freight, reliability seems to be the single most important quality. Users prefer a method which delivers goods reliably. All things being equal, methods should be chosen which provide for

the shortest time in transit, the greatest degree of safety and the highest standards of reliability.

Constraints Imposed By The Present System

Despite the fact that objectives for a Newfoundland transportation system can be stated with reasonable precision and despite the fact that Newfoundland's future needs in the field of transportation are reasonably clear and definite, it is not possible to move directly toward attaining all those objectives and satisfying all those needs nor, in many instances, to move as rapidly as might be wished. To some extent we must live with the mistakes of the past: mistakes in planning, in lack of planning and in the allocation of resources. Some of these mistakes are not remediable, others can only be corrected over time. This situation must be acknowledged and taken into account as we proceed toward the development of a transportation policy. The most obvious and important constraints which the present situation imposes are as follows:

1. Existing facilities and transportation network.

Clearly, much capital has been expended on the existing transportation network which has already been described in Section II of this report. When future needs are being considered, existing facilities must necessarily play an important part. Even if, for example, it was considered desirable to have the main sea-rail interface at Corner Brook, the enormous capital investment already made at Port aux Basques would probably constitute an overriding practical reason for abandoning the idea. Thus greater efficiency and convenience would necessarily be sacrificed to the logic of expensive facilities already in place. Other obvious constraints relate to the location of the capital city and the largest concentration of population on the Avalon Peninsula, that part of Newfoundland most remote from the mainland of Canada. No matter how desirable it might be, from a theoretical transportation point of view, it simply would not be practical to move the capital city to the west coast. Similarly, the rail line cannot be moved as needs dictate. Any transportation policy must work, where possible, within the framework of existing facilities.

2. Existing patterns of employment.

Transportation policy must be designed in recognition of the effect which changes will have on existing patterns of employment. For example, more than 1200 employees would be displaced were the railway to be abandoned and even though many of these ought to find work in the transport systems that would replace the railway, it seems, at present, unlikely that all could be absorbed. Nor would this represent the full extent of the problem. The loss of 1200 primary jobs would have a cumulative effect throughout the whole economy, affecting many other people. The

social costs, including the direct financial costs of social welfare benefits, could be a constraint strongly supporting retention of the railway. In any case, the existence of those 1200 workers must be a matter for the most serious consideration of policy makers. Certainly future planning must make provision for special programmes of consultation, retraining and reallocation if the reasons for significant changes are, or become, overwhelming.

3. Existing subsidies.

Subsidies are initiated to alleviate specific difficulties and/or to encourage economic growth, but their side effects may operate powerfully beyond the system directly involved. For example, the heavy federal subsidy provided to the CN coastal service has had the concomitant effect of forcing the small private shippers either to charter their ships to CN or to go out of business. By the same token, the subsidy to the Newfoundland Railway allowed freight rates to be set at an artificially low level and made it difficult for other carriers to compete for the traffic offering. Accordingly, in 1969, under The Atlantic Region Freight Assistance Act (ARFAA), truckers became eligible for a subsidy, and in 1978 the air and water modes will also become eligible.

It has been argued that The Maritime Freight Rates Act (MFRA) has never had the intended effect: the development of a sound industrial base in Eastern Canada. In consequence, many studies and commissions have recommended that the subsidy be modified drastically or eliminated. Nevertheless, it has continued until 1978 and, although various modifications have been introduced, no really significant change has been made. Other examples could readily be provided to illustrate the truth of the statement that subsidies are far easier to put on than to take off. Changing the pattern of existing subsidies in Newfoundland, if major changes are required, will not be an easy task and will represent a real constraint as policy is developed.

4. The Constitutional obligation.

At first glance, it may seem contradictory that any Constitutional obligation should act as a constraint. However, under The Terms of Union of Newfoundland with Canada, Canada is obligated to operate the railway and relieve the Province of any deficits incurred. Any alteration of this agreement must be mutually acceptable to both the Federal and the Provincial Governments; failure to agree could lead to long and involved litigation, reaching the Supreme Court of Canada. Any plans to abandon the railway, for example, might take years to execute and decisions affected by this delay might well reach fruition only after obsolescence. Thus, Constitutional obligations may be a constraint.

5. *Size of the market in Newfoundland.*

The population of Newfoundland on July 1, 1977, was 563,200 according to a Statistics Canada estimate. With such a small population, the market in Newfoundland is relatively small and any transportation network must gear itself to this fact. In addition to this, in terms of general cargo tonnage, most of the traffic is eastbound resulting in under-utilized back-haul space. The small market also affects the viability of alternative or competing modes of transport. While it might be ideal to have a choice of sea, air, rail or road transportation to fit individual exigencies, it may well be that with all four operating in competition, none will be able to capture sufficient traffic to remain economically viable, even with the aid of subsidies.

6. *Public desires and expectations.*

In this, the 8th decade of the twentieth century, public expectations have, perhaps, exceeded practical possibilities. Nevertheless, it must be recognized that user expectation is an important factor in transportation. It is the *degree* of expectation which must be measured. Reasonable expectations must be carefully taken into account. The average Newfoundlander should not expect, for example, commuter services between St. John's and Corner Brook that match those between Toronto and Montreal. Nevertheless, he should expect to be able to travel between Corner Brook and St. John's in comfort and on a regularly scheduled basis. If a service falls below legitimate expectations, even if the service is adequate by objective or statistical analysis, public discontent can be anticipated, which, in turn, acts as a constraint.

7. *Federal and provincial responsibilities.*

Certain responsibilities in transportation fall under federal jurisdiction and still others under provincial. Unfortunately, these two jurisdictions are not always well co-ordinated. For example, the railway is a federal responsibility while roads fall within provincial jurisdiction even though federal funds are often used in their construction. It is apparent that the best result could be achieved if the services offered by road and rail were fully and effectively co-ordinated. Furthermore, the Canadian Transport Commission, the principal regulatory body, is located in Ottawa and its regulations do not always take cognizance of local problems. Furthermore, its decisions, once taken, are slow to be changed. Again, the MOT and CTC do not always adequately inform the Provincial Government of their intentions and, consequently, misunderstanding results. Liaison between the two levels must be carefully considered in policy making.

8. *Financial realities.*

Just as the private citizen must "cut his garment according to his cloth" so must governments do

likewise. No matter how desirable it may be to have the very best in every mode of transportation, public funds must be spent with an eye to efficiency and cost effectiveness. It might, for example, be highly desirable to have a modern standard gauge railway across Newfoundland, but it would be most difficult to justify the amount of over \$700 million which would be required for such a project. Thus financial considerations are a major, if not, indeed, the most important constraint on transportation policy.

Principles Which Should Guide Change

Having stated the objectives, identified the future needs and indicated the principal constraints which will affect development, attention must be addressed to those basic principles which should guide and control the changes envisaged. These are intended to ensure that changes are introduced in a gradual, orderly and systematic manner so as to limit the disruptive effects of hastily introduced or ill-considered actions. The most important principles are as follows:

1. *The Provincial Government and all interested groups in the Province should have the opportunity to offer advice concerning all changes that are contemplated.*

Much confusion and dissatisfaction can be avoided if proper consultation occurs before any proposed action is taken. The Provincial Government has a Department of Transportation and Communications whose personnel ought to be able to offer important advice. The Provincial Government will rightly be concerned that specific changes and policies concerning transportation will fit into its overall policies concerning the economic development of the Province. Also the people of this Province feel that they have a right to be consulted or at least informed concerning proposed changes in the transportation mode. It seems reasonable to assume that the people who are closest to a particular problem, and who will be directly affected by proposed changes, will be in a good position to give pertinent advice. At least, they should be provided with a forum for the presentation of their views. In short, decisions should not be arbitrarily taken but should follow upon purposeful consultation with all those whose interests are directly involved.

2. *Short-term changes should not be incompatible with long-range goals.*

Policymakers are often accused, and rightly so, of acting on the basis of partial information to solve a short-term problem in a manner that will in fact in the long run create new and even more serious problems. Therefore, careful priority planning must always precede change and provision must always be made for contingencies. However, planning and study must not become ends in themselves or offered as excuses for

inaction. There must be a balance struck whereby thorough planning is followed by appropriate action.

3. Existing facilities should be used whenever possible to maximum effectiveness.

Before major changes are contemplated, at a port for example, it should be clear that the maximum potential is being derived from facilities already in place. Careful study might indicate that with minor modifications, existing facilities could be adequate, at least for the short term, before extensive planning and construction take place. In some instances, the demand for major construction might disappear once the existing facilities were fully used at top efficiency. Other examples of possibly under-utilized facilities exist in the fishing industry. Fish plant management, for example, claims that available transportation is inadequate to their needs, although it may be that there are carriers already available who are uninformed of the requirements of the industry and unaware of the opportunities available to them. On the other hand, industry may be insufficiently organized to take advantage of a service that particular carriers are prepared to offer. Thus when Air Canada offered a cheap air rate (6¢—7¢ per pound) for fish shipment to Montreal, the fishing industry was unable to provide a reliable supply on a continued basis and the service was subsequently dropped. From this it appears to be absolutely necessary to discover what facilities are really available before contemplating any change. When the information has been assembled, it may be that a carefully planned co-ordination of existing services and facilities will obviate to a considerable extent the necessity for substantial capital investment.

4. Adequate notice must be given to all those who will be affected, concerning any major changes which will be carried out.

Even though prior joint consultation has taken place, it will still be necessary to give adequate notice of the change. It is a well-known fact that the 15% subsidy granted in the Atlantic Region is under review at the present time. Those carriers affected are well aware that the subsidy may be applied on a commodity basis or even dropped. However, the notice of discontinuance should be given long before the change is effected, and where changes are to be made, the subsidy should be phased out gradually so that carriers can make adjustments accordingly.

5. Changes should be introduced in such a manner as to minimize social and economic disruption and adequate provision should be made for those workers whose jobs would be threatened or eliminated by proposed changes.

First of all, any change which will involve the loss of employment for any number of people must be intro-

duced very carefully. Often changes which are made have disturbing economic and social consequences, particularly for the short term. Attitudes towards lay-offs and unemployment have drastically changed in the last forty years. In the thirties, it was generally believed that the burden should fall on the shoulders of those who first incurred the loss. In the seventies, it is usually believed that society has a responsibility towards people who have lost their jobs through no fault of their own. When any changes are proposed which will adversely affect employment in any given area, the disruption which follows is extremely unsettling. When unemployment occurs in the one-industry town, the effects are drastic.

It would be less disruptive to instigate a programme of retraining and relocation of people displaced, for instance, by any proposed abandonment of the railway long before any disruption actually occurs. If the employees were retrained and/or relocated in a planned programme which would start well in advance of proposed changes, the disruption would be somewhat alleviated. In addition, it may be that future development in other economic spheres might be proved feasible for the region. It is clear that any major change in transportation policy must take place only after appropriate plans have been made, insofar as is possible, for those who will be affected.

A Glimpse At the Future

Planning for the future might be helped and made more realistic if the Commission had a reasonably good idea of exactly where our destination will be. The Commission shall, therefore, attempt to sketch in bare outline a picture of what the Newfoundland transportation system will most probably look like 20 years from now.

Predicting the future is a hazardous business, as every weather forecaster knows. Even when all of the facts are known and then specific effects predicted with reasonable certainty a large margin of error is inevitably found and the inaccuracy increases directly with the length of time which the prediction involves. Sometimes an entirely unexpected factor emerges which makes all previous predictions invalid and hopelessly inaccurate. For example, the introduction of "the pill" rendered all previous predictions of birth rate completely invalid. Witness the tremendous difficulties which reducing enrollments have imposed on our school system. Similarly, the tremendous increase in tractor trailer traffic which occurred in Newfoundland during the 1970's was largely unexpected. This increase made inaccurate previous predictions concerning other modes of traffic, especially rail freight.

The Commission is being asked to plan for the next twenty years. It must, therefore, try to visualize what transportation in Newfoundland will look like in 20 years. This must be done in part because the terms of

reference of the Commission clearly call for such long range planning and in part because the recommendations which will be made may very well help to shape the development which will occur during the next twenty years. In the predictions, it will be assumed that the major recommendations of the Commission have been accepted and implemented.

The Commission will, therefore, take a look into the future. It shall try to picture what the Newfoundland transportation system will look like 20 years from now. Various services and facilities will be commented on briefly. In this manner the Commission shall have some idea of the direction in which the Province shall be heading during the next 20 years. The Commission will then in subsequent chapters return to the present to discuss and hopefully resolve some of the major problem areas which complicate the Newfoundland transportation system. Specific recommendations which will be intended to guide and direct the coming changes will then be presented.

General Overview

1. The Gulf.

The Gulf crossing for passengers and trucks will inevitably involve ferry movements between North Sydney and Port aux Basques. At least four large specially designed 300-car ferries will make three trips each day in the peak season during the summer and an appropriate number during the winter. The crossing will take approximately four and one-half hours. The ferries will have limited berth accommodations and therefore all crossings for passengers will be during daylight hours. Night crossings will be used in peak periods. At all times trucks will be given priority on night crossings.

Between North Sydney and Argentia there will be daily service during the summer by two ferries. The crossing will take approximately fourteen hours and overnight accommodation will, of course, be provided.

One ferry will operate, perhaps twice a week, during the winter season. The other ferry will operate on the Gulf during the winter and will provide overnight accommodation because the trip will take several hours longer during the season when ice is encountered.

Another overnight ferry will operate during the summer season from North Sydney to Port aux Basques to Bay D'Espoir and Terrebonneville and return. The ferry will, like the Argentia ferry, be capable of carrying passengers, private cars and trucks. The turn around will be accomplished in forty-eight hours and will leave North Sydney and Port aux Basques at 11:00 p.m. Those who wish to take advantage of an overnight crossing with suitable berth accommodations will be able to obtain a berth on a crossing from North Sydney to Port aux Basques two

days per week during the summer season. This service will, of course, be on a reservation basis. This ferry will also revert to the Gulf crossing during the winter months.

During the summer months there will be a service between Aspey Bay on Cape Breton Island and Port aux Basques. The service will be provided by two large Hovercraft similar to the Super 4 which British Rail operates on the English Channel. The craft will take 80 cars and 300 passengers and will cruise at 60 miles per hour. Thus the crossing will take a little over an hour and the craft will be able to turn around in less than two hours. Up to ten trips in each direction each day will be scheduled.

The service across the Strait of Belle Isle will be provided by a large conventional ferry during the summer months. During the winter months the service will be provided by a smaller Hovercraft which will be capable of carrying vehicles and passengers and which will be able to operate in all except the most severe ice conditions.

2. The Coastal Service.

The Coastal Service will have virtually disappeared as roads to all of the communities make it unnecessary. If water transportation is provided on the south coast it will be provided by large high speed vessels with day routes similar to those now being served by the 'Marine Runner' and the 'Marine Sprinter'. A smaller high speed vessel will provide service to any Placentia Bay communities not connected by road.

If the Trans Labrador Highway has not been completed, there will be a direct water service weekly between St. John's, Lewisporte, St. Anthony, Cartwright and Goose Bay during the June to October months. The service will be provided by an ice strengthened vessel built especially for that service.

Service to the southern Labrador communities which are not connected by road, will be provided by a combination of air services and fast high speed launches. Service to the northern Labrador communities will be provided by air during the winter months and by Hovercraft during the summer months (the same Hovercraft which operates in the Straits during the winter months). Freight deliveries to the Labrador coast will be by large freighters which will stop at major distribution points. Smaller chartered vessels will distribute the freight to the more isolated communities.

Intra-Island Ferry Service will continue on most of the routes which are served at present but some of the Island communities may be connected to the mainland by a causeway. The ferry services to the remaining Island communities will be provided by vessels which are sufficiently large to deal adequately with the traffic offering.

3. *The Road Network in Newfoundland.*

The basic corridor between Port aux Basques and St. John's will be served by a modern arterial highway. The highway will have at least two lanes with appropriate passing lanes for its entire length. Four-lane sections will be needed at least between Deer Lake and Stephenville, between Grand Falls and Notre Dame Junction, and between Clarenville and St. John's. A separate section of the highway will join Southwest Brook, Buchans and Badger. This will reduce the trip across the Island by approximately one hundred miles.

The road up the Northern Peninsula will have been improved considerably with widening and passing lanes provided. Between Newfoundland and Labrador there will be a year-round crossing service provided either by a tunnel or by a combination of ferry service during the summer and Hovercraft during the winter.

There will be a Trans Labrador Highway from Forteau to Goose Bay to Churchill Falls to Labrador West. The highway will then connect with the highway system of Quebec. The coastal communities of southern Labrador will all be joined by branch roads to the main highway.

All of the secondary roads on the Island and Labrador will have been paved. A secondary road will have been constructed along the south coast from Rose Blanche to Bay D'Espoir and around the bottom of Fortune Bay from the Connaigre Peninsula to English Harbour East. (It should be noted that the development of such a road system has been vital to the economic development of Iceland.)

4. *Surface Transportation.*

The basic surface transportation will be provided by bus along the Trans Canada Highway. The buses will be larger and more comfortable than at present. Express service from St. John's to Port aux Basques will be provided daily by at least two day and one night runs. Frequent local trips will cover the St. John's to Gander, Gander to Corner Brook and Corner Brook to Port aux Basques routes. These routes will provide connections with each other, with the express service and with local bus services. Depots which will provide waiting rooms with wash-room facilities and restaurant services will be provided at each of the major intersections of secondary roads with the Trans Canada. Attendants at each station will be able to provide up to date information concerning schedules and bus arrival and departure times. Also, connecting bus services will have been provided for the Northern Peninsula, the Baie Verte Peninsula, the Bay D'Espoir highway, the Bishops Falls and Lewisporte turn-offs, the Bonavista Peninsula and the Burin Peninsula. These services will interlink with the Trans Canada service and it will be

possible to buy a ticket to travel from St. John's to St. Anthony.

5. *Direct Water Freight Service.*

Most of the traffic movement coming to and going out of Newfoundland will be by direct water movements. There will be frequent boat trips between Montreal and St. John's, Montreal and Corner Brook, and Montreal and Goose Bay. Several different companies will provide these services and the level of competition will be high.

There could also be an increase in direct water movement between St. John's and Halifax. This will be supplemented by additional direct water routes between the major Newfoundland ports, i.e., St. John's, Corner Brook and Argentia, and other ports in the Maritime Provinces and Central Canada.

There will be a major port on the coast of Labrador, probably to the north of Groswater Bay. This port will be connected to Goose Bay by road and may, perhaps, be connected by an east west rail system that would sweep across Labrador and proceed *via* the foot of James Bay to Montreal.

The harbour facilities in both St. John's and Corner Brook will have improved considerably to enable these ports to handle the substantial increase in direct water traffic. Improvements will also have been made in the port facilities in Argentia and Lewisporte. A major project will have converted the harbour at Terrenceville into the eastern terminus for the coastal service along the south coast and the ferry from North Sydney, Port aux Basques and Bay D'Espoir. Port facilities at St. Albans will also have been improved to permit docking of a ferry.

6. *Air.*

Passenger traffic to Newfoundland will have increased greatly and numerous flights will be made to all of the Newfoundland airports by Air Canada and by Eastern Provincial Airways. Improvements to the landing system at the St. John's airport will make possible a higher proportion of landings during the bad weather periods of the year. Regional carriers will also operate between Newfoundland communities. The airport system will include airports in all of the northern Labrador communities and some of the southern Labrador communities as well. Third level carriers will provide daily service between St. John's, Clarenville, Gander, Deer Lake, Stephenville and Port aux Basques, as well as the Labrador communities.

There will be a daily freight service by a large aircraft which will leave Montreal, call at Gander and proceed to Europe. The flight will return by the same route on the following day. This flight, combined with refrigerated holding facilities at the airport, will permit the shipment of fresh fish to central Canada and to Europe.

From the above outline it is possible to determine three basic directions in which the Commission sees transportation in Newfoundland moving. These are:

1. A considerable increase in direct water movement.
2. More and more varied ferry connections between Newfoundland and the mainland.
3. Increased dependence on the highway system for surface transport.

The Commission does not anticipate much conflict with these basic directions. Other decisions will require that key issues be examined and settled. The reader will note the absence of the rail system in the discussion above. The future of the railway is the first of these key issues which the Commission will now examine.

Section 4

Key Issues in Newfoundland Transportation

Chapter VIII

The Future of the Railway in Newfoundland

The future of the railway in Newfoundland constitutes the most important, difficult and agonizing specific problem faced by the Commission. A greater variety of representation was made to the Commission concerning the railway than concerning any other mode of transportation or transportation facility. Virtually all of the representations included strongly held opinions and many were couched in highly emotional language. Most argued that the railway should be continued, upgraded and given the ability to offer services and incentives which would increase the proportion of traffic handled. Others argued that no further money should be spent on the railway and that it should, if necessary, be abandoned in favour of a greatly improved Trans Canada Highway across the Province.

Since the problem is such an important one, it is desirable to define its terms with care and precision. Only then can the Commission be reasonably sure that we know its precise nature and appreciate the full implications of the decision that must be made.

In addition to the branch lines, the railway in Newfoundland actually consists of three distinct elements:

1. The rail car ferries across the Gulf;
2. The marine/rail interface at Port aux Basques which provides for the transfer from wide gauge cars to narrow gauge cars; and,
3. The narrow gauge rail line from Port aux Basques to St. John's.

However, most of the submissions to the Commission did not differentiate among these elements but included all of them under the general term "Newfoundland rail".

Public opinion, as represented to the Commission, tended to support one of two extreme positions in respect of this system. On the one hand were those

who argued for its complete retention and for appropriate upgrading of facilities to include the elimination of curves, the reduction of grades, the improvement of bridges, or, indeed, in the most extreme view, the replacement of the entire system with a modern standard gauge railway. At the other end of the spectrum were those who would totally abandon the rail system at the earliest feasible date and use the money thus saved to upgrade highways and improve other transportation facilities in the Province.

Let us examine, briefly, some of the implications of this latter position. It should be clear at the outset that an immediate abandonment of the rail service would not be practical. Even if such a decision were taken in the immediate future, a certain period of time would have to be allowed for the railway operations to be phased out. During 1977 the railway carried 358,000 tons of freight into Newfoundland, carried an additional 91,000 tons out, and moved 243,000 tons within the Province. The railway could not be abandoned until other modes of transport were available to move those tonnages and the alternatives to rail transport, i.e., trucking, direct marine and air, could not cope with them with their present carrying units and facilities. Before they could cope, roads would have to be considerably improved, port facilities would have to be improved and enlarged, and new trucks, vessels and aircraft would have to be made available. Obviously it would require several years before these changes, even if commenced in the immediate future, could be completed.

Furthermore, and of at least equal importance, plans would have to be made to provide for those workers who would be displaced by the abandonment. Most of those affected would be men of mature

years, with training and experience in only one type of work and who live in small one industry towns. Given the general difficulty of finding employment in Newfoundland, the problem of finding other jobs for these people would be well nigh insurmountable. Certainly, any chance of success would be contingent upon the implementation and development of special programmes, involving such devices as retraining, relocation, and early retirement. Such programmes would undoubtedly take several years to plan and carry out; and yet, unless such special measures were introduced, the social and economic dislocation which would result from the change would be disastrous. A period of three to five years, during which carefully planned steps intended to provide the necessary facilities and to deal with the resulting social consequences, would be required for the phase-out to be successfully conducted. Nor could this three to five year period be commenced until the decision to proceed with abandonment had actually been taken and the constitutional complications dealt with. For it is clear from the legal advice that the Commission received, that the abandonment of the railway would involve difficult and time consuming constitutional complications. Even if the Provincial Government agreed that the abandonment of the railway would be advantageous and co-operated with the Federal Government to set the appropriate machinery in motion to bring about the required constitutional changes, that change could not, in all likelihood, be brought about in less than two or three years.

On the other hand, if the Provincial Government actively opposed such a change and if the Federal Government decided to continue with its plan despite provincial objections, then the matter would be, of necessity, referred to the Supreme Court of Canada. Even if the federal authority ultimately won its case and were given permission to proceed with abandonment, a minimum period of five or six years would elapse before the matter could be decided and the phasing out process commenced.

Under the most favourable circumstances then, the decision to abandon the railway could not be made before two or three years have elapsed and if we consider that further time would elapse between the actual decision making and the beginning of any phase-out procedure, we might well conclude that a minimum of five years would pass before any phase-out could start. In any case, apart from the legal and constitutional complications, it would take at least that period of time to develop adequate alternative forms of transportation service.

An immediate choice, therefore, between the railway and a greatly improved highway is not a practical possibility. Whatever decision is made concerning abandonment, the railway must, as a minimum requirement, maintain the present level of service for

a period of at least five years. Throughout that same period, the Trans Canada Highway *must* be improved to meet accepted Canadian standards for the amount of traffic which will use the road. Changes of a radical nature, therefore, are at least five years in the future. The decision which must now be made is whether the railway is eventually to be abandoned, whether it is to be continued indefinitely, or whether some other option is available. If it is to be abandoned, the phase-out would start not earlier than five years from now and would last for three to five years. Prior to and during the phase-out, arrangements would have to be made to provide additional facilities to deal with the increased traffic which would be diverted to the roads and to direct water and air routes.

It is, of course, possible, in theory, to consider modifying one or two elements of the rail system without changing the remaining part or parts. Thus, for example, the rail car ferries across the Gulf and the marine/rail interface at Port aux Basques could be eliminated while retaining, in whole or in part, the rail line in Newfoundland. The Commission has considered this possibility carefully, but has rejected it because it is precisely in the movement of intra-Island traffic that Newfoundland shows the greatest losses. To eliminate the Gulf crossing from the rail operation would, therefore, eliminate what is actually and potentially the most profitable traffic and, for that reason, it is clearly an impractical solution. Other possibilities of an analogous nature were also considered and found to be either impractical or impossible. In consequence, the remaining discussion in this chapter will refer to the complete rail system.

Relating to the future of the railway in Newfoundland, many and varied opinions were presented to the Commission. There were, however, no serious differences concerning two important points; firstly, that the amount of traffic and especially the proportion of traffic into, out of and within Newfoundland handled by the railway has decreased drastically during recent years and is likely to decline further in the future; and secondly, that the railway operation in Newfoundland is not commercially viable.

Let us briefly examine each of those propositions. In the case of the first of them, there are clearly serious differences of opinion concerning the *reason* for the decline in rail traffic and diametrically opposed answers were given to the question of whether reduction in service preceded or followed reduction in traffic. On the one hand, the Unions claimed that a reduced level of service and reductions in the frequency of train movements were initiated by CN before traffic showed a serious decline and that these reductions, together with rapidly escalating freight rates, *caused* the decline in traffic. Several submissions from businesses also pointed to increased rates

as of considerable importance in diverting traffic from the rail.

On the other hand, CN, in its submissions, maintained that the frequency of trains had not been reduced until it had become obvious that the service exceeded the requirements. Thus, although traffic decreased considerably during 1975, the frequency of trains was not reduced until 1976. CN also stated that it is required by law to charge rates which are compensatory, i.e., which cover the variable costs of the movement involved. It does not itself have the flexibility to offer rates which are non-compensatory and can do so only upon receipt of a direct order from Government.

The Commission, even after a detailed study of the records involved, is not able to offer a final or conclusive answer to the "chicken and egg" problem of the relationship between decline in service and decline in traffic. All of the available evidence supports the position that reductions in traffic came before reductions in service. The Commission is not convinced, however, that CN was aggressive enough in its salesmanship to attract new traffic or in its efforts to prevent existing customers from switching to other modes of transportation.

Concerning the second proposition, it is generally recognized that rail operations in Newfoundland lost fourteen million dollars during 1976 and comparable amounts during each of the five previous years. But this does not tell the complete story. Additionally, the deficit on the Gulf operation and the costly marine/rail interface Port aux Basques is paid directly by the Federal Government. This deficit includes costs attributable to the movement of passengers and cars, of trucks and of rail cars, as well as to the transfer of freight in Port aux Basques. The Research Staff of the Commission was able, on the basis of data provided to the Commission by CN and CTC, to separate the amounts which could be attributed to each of these components. In 1976, the unrecovered cost on the Gulf which can be directly attributed to the marine/rail interface, i.e., to the movement of rail cars across the Gulf, to the transfer of freight cars in Port aux Basques, and the capital costs was thirty-six million dollars. Therefore, the total amount of loss which can be attributed to the rail movement in Newfoundland during 1976 was approximately fifty million dollars.

Neither the Newfoundland railway nor its successor, the Canadian National system in Newfoundland, has ever showed a profit except for a few years during the Second World War. One of the sub-committees of the National Convention chaired by J. R. Smallwood concluded that the railway in Newfoundland could never become a commercially viable operation and that substantial annual deficits would undoubtedly occur. Attracting more traffic to the rails would certainly not, in itself, solve the problem entirely. The Research

Staff of the Commission has determined that, even if all of the traffic to and within Newfoundland moved by rail could immediately be doubled, the annual deficit would not be eliminated, but would in fact exceed two million dollars. In short, the preponderance of opinion and evidence available to the Commission suggests that the Newfoundland railway will not, and cannot, be commercially viable under any circumstances.

Obviously, however, factors other than commercial viability must be considered and many arguments in favour of the retention of the railway were presented to the Commission. All were presented with considerable force and vigour representing, as they did, strongly held positions. Nevertheless, some, in the opinion of the Commission, are of doubtful or questionable validity. These include the following propositions:

1. *Newfoundland is entitled to a railway.* The rationale for this assertion is that all of the other provinces of Canada have railways as well as roads, and that to deprive this Province of a railway would somehow relegate it to a second class status. This view is strongly held, was presented with vigour and vehemence by many individuals, and evokes a strong emotional response from many Newfoundlanders. However, *provided that a more effective transportation network were provided in substitution for the railway, and provided that the monies saved were spent within Newfoundland*, the position is difficult to justify on logical grounds.

2. *The railway has not been given an opportunity to demonstrate its effectiveness.* Many of the union briefs stated or implied that CN management had not been sufficiently aggressive in making railway service effective and in selling the service to potential customers. There is a strong feeling that CN management has let traffic slip away and that more vigorous planning, promotion and salesmanship would lead to the return of a substantial amount of lost traffic to the railway. This argument is an important one but it is extremely difficult to substantiate. Certainly it is not only Newfoundland that has experienced a decline in rail traffic during recent years. In virtually all other parts of North America, general cargo which is moved over relatively short distances (less than 500 miles), is moved by forms of transport other than rail. This is not to suggest that all that could have been done to attract traffic to the rails has, in fact, been done. It is simply to say that, even if more effective and vigorous planning and salesmanship were introduced, it is questionable if any substantial increase in the amount of traffic would result in the long run.

3. *The railway provides a necessary and perhaps essential public service in that it provides daily deliveries by a common carrier.* It is alleged that all of the unpopular and unprofitable commodities

which other carriers do not seek, and perhaps deliberately avoid, must be carried by the railway and that if rail were not available it would be extremely difficult to find carriers to transport them. This point was made with great frequency and indeed specific charges concerning refusals to accept unpopular commodities have, at times, been made against particular companies. However, investigations by the CTC have failed to substantiate such charges and allegations. Thus, while the point may be a valid one, it is impossible to find conclusive evidence which will substantiate it. The Research Staff of the Commission was unable to find any commodity which is "captive" to rail in the sense that it can only be moved by the railway. Some products and commodities, e.g., cement and lumber, are obviously moved more easily by rail but these could be moved by other means if the railway did not exist. It is reasonable to conclude that if we did not have a railway, all traffic would still be moved by one or another of the various forms of transport available.

4. *The railway provides the only dependable service to Newfoundland.* The argument here is that other modes of transport, shipping in particular, are subject to periodic interruptions by weather and by heavy ice along the coast and in the Gulf. During these interruptions, traffic which other carriers ordinarily move is transported by rail. If the railway did not exist as a backup service, considerable difficulties and delays would undoubtedly result. While there is no doubt that other carriers must from time to time use the railway, there is no logical reason to suppose that the railway itself is not subject to occasional delays and difficulties. Indeed, rail traffic is interrupted by derailments and washouts on the line. Nevertheless, it cannot be denied that there are times in emergency situations when the railway might prove to be very useful. On the other hand, interruptions in the direct water service can be eliminated, or reduced considerably, by shipment from Maritime ports as well as from Montreal and by trucking over the highway.

5. *The railway sets a rate standard which holds down the rates charged by other carriers.* That is to say that other carriers deliberately set rates which are a little above or a little below the rail rate. If the railway were eliminated, this stabilizing influence would be lost and rates might be expected to escalate. Although it is certainly true that other rates are deliberately set in relation to rail rates, it is very doubtful that rates would change considerably if rail services were no longer being offered. Competition among other carriers would certainly exert a stabilizing influence and, in any case, legislation could if necessary provide that all rate increases would require the approval of the CTC.

6. *If the railway were eliminated, the resulting increase in highways which are less efficient users of space would produce considerable environmental damage while the concomitant increases in traffic would lead to increased accidents on the highway.* In the Newfoundland context the use of space for roads is not a particularly important consideration at the present time, nor is the environmental damage which widening roads would involve. Furthermore, adequate design and proper construction should provide highways that are suited to the amount of traffic which will use them and that will be not less safe and, perhaps, considerably more safe than the Trans Canada Highway with its present amount of traffic and in its present condition.

Not all the arguments presented to the Commission to support the retention of the railway can be dismissed. Among those deserving of more careful attention, the following are judged to be most important:

1. *The continuation of the rail service across the Gulf, the marine/rail interface at Port aux Basques and the railway service across Newfoundland are all guaranteed by the Terms of Union agreed to between Newfoundland and Canada in 1949.* The Terms of Union do not qualify the conditions for continuation by any considerations of commercial viability. Constitutionally, the service must be provided regardless of the cost.

2. *The decision to abandon the railway would be irreversible.* If railway service were terminated, the rails and rolling stock would either be sold or would rapidly deteriorate to the point of uselessness. Thus, even if unexpected occurrences made a return to rail transport seem attractive, such a move would be extremely costly or even impossible. Also, if the railway were abandoned, useful experimentation with novel types of rail usage, such as a day-liner service between Whitbourne and St. John's, or between Gander and St. John's, or even between Corner Brook and St. John's, and the use of the rail system for tourist travel during the summer months, would not be possible.

3. *The railway is a much more efficient user of fuel than competing forms of transport, especially trucking.* There is no doubt that trucks use at least four times as much fuel as the railway in transporting equivalent amounts of goods. This point is valid and may be of considerable importance in future years. On the other hand, ships are far more fuel efficient than trains so that maximizing the use of water routes will provide the most effective use of fuel.

4. *The railway does provide a good and effective service for some of its customers.* Some companies have geared their business to the availability of

rail transportation and have a clear and definite preference for rail. If the railway were to be eliminated some of these businesses might be forced to close or to reduce their operations while others would certainly be seriously inconvenienced or put to considerable expense in providing for alternate means of transportation.

5. *The railway is an important employer in a province where the unemployment rate is approximately twice that for Canada as a whole.* The railway and the marine/rail interface at Port aux Basques provide approximately two thousand people with employment and a way of life. If the railway were eliminated, then these two thousand people would be unemployed with the devastating effects all too familiar in a province which has but recently experienced major layoffs resulting from the closedown of the Stephenville Linerboard Mill and Come-By-Chance Oil Refinery. It should be noted, however, that the burden would fall upon those *individuals* whose jobs would be terminated. There would not likely be a serious effect upon the employment level of the *Province* as such, for the same amount of traffic would continue to flow to and from Newfoundland so that increased activity in other segments of the transportation industry would create as many, or more, new jobs as those lost. However, the new jobs would undoubtedly go to individuals who were younger than those dispossessed, who had more appropriate training, or who lived in areas where the new jobs would be created.

Taking all those arguments into consideration, the Commission has concluded that the elimination of the railway would be such a serious blow to those towns depending upon it for their livelihood that no reasonable effort should be spared and no justifiable expense ruled out in an effort to preserve it in whole or in modified form. In consequence, the Commission examined in detail and with great care, methods by which the rail service could be made more efficient and more nearly viable.

Among the ideas considered were the following:

1. That the railway should be converted to standard gauge, a project that would involve virtually a complete rebuilding of the line and would cost approximately 750 million dollars;
2. That the present roadbed should be improved, reducing the grades and curves, a project that could be accomplished with an expenditure of approximately 50 million dollars;
3. That railway rates should be lowered substantially so as to be considerably below those of other carriers, a proposal that would require no capital outlay but which would certainly cost several million dollars annually in subsidy requirements; and
4. That both the management and the employees of CN should be encouraged to make the rail service

more attractive and efficient through more careful planning, more aggressive salesmanship, more careful handling of freight and more careful and considerate attention to the legitimate needs of CN customers.

The first of those proposals, if implemented, would reduce the time required for a train to cross the Island by approximately twelve hours, while the second, i.e., improvement and realignment of the present line, might result in a saving of as much as six hours. But even a saving of twelve hours would not make the railway competitive, in terms of time, with truck shipments between Montreal and St. John's. Furthermore, although the use of standard gauge would reduce the cost of the transfer operation in Port aux Basques, that gain would be at the expense of virtually all employment in the town. In short, neither the construction of a standard gauge line nor major modification of the existing line promises sufficient real advantage to justify expenditure of the large sums of money involved.

The third proposition appears attractive at first sight. Substantial rate reductions would undoubtedly increase the amount of traffic using the railway and may, in fact, be necessary as a short-term measure. But in the long term, it is not a practical solution since it would force competitors of the railway to lower their rates to uneconomic levels or to lose their business. This, in addition to being grossly unfair, would produce a distortion in the normal traffic patterns, would be contrary to national transportation policy, and would, by limiting or eliminating competition, reduce opportunities for employment in other areas of transportation.

The fourth proposal might well produce an increase in customer satisfaction and in traffic attracted to the railway and might, consequently, lead to an improvement of CN's financial position and a reduction of the present deficit in respect of the Newfoundland operation. However, this prospect does not appear to offer a viable solution for the foreseeable future.

We must return, therefore, to the basic question. Should the railway in Newfoundland continue for an indefinite period? The decision must be formed, in part, by the knowledge that the Gulf and railway operation is extremely costly, a subsidy of 50 million dollars having been required in 1976. Since a comparable amount of traffic could be moved by water at considerably less than half that cost and since there is also little doubt that the deficit associated with the Gulf and railway will increase as the years go by, we must ask whether we can afford to spend so much for an inefficient service. Could not that amount of money be spent to greater advantage on some other transportation facilities or on the economic development of the Province? It is true that much greater amounts of money are lost in other aspects of the transportation

system in Canada, e.g., in the movement of grain at Crow's Nest Pass rates. Consider, however, in the Newfoundland context, that the entire budget for the Provincial Department of Fisheries for the 1978-79 fiscal year is only 18 million dollars—considerably less than the amount which might be saved by a more efficient transportation system.

We must also consider that, if the present decline in traffic continues, there will soon be insufficient volume to justify one train per day and we can easily envisage a reduction to one train every second day, then to two trains per week and, eventually, to one train per week. Thus the railway may already be condemned to a slow and lingering death. For, even if the obligation of the Federal Government to maintain the railway "in accordance with the traffic offering" were accepted as a correct interpretation by the courts, this would not mean that the rail service would have to be continued indefinitely regardless of circumstances. If no or little traffic were offering, the constitutional obligation could not require that the service be maintained, provided of course that no deliberate action, such as large and unjustified rate increases, had been taken to create that situation. If, in the normal course of events, the amount of traffic on the rails declined until it reached or approached zero, the Federal Government would be released from its obligation to maintain the rail service in Newfoundland.

In the context of these considerations, it is difficult to avoid the conclusion that, no matter what actions are taken, the complete railway service in Newfoundland will probably not survive beyond another decade. Nevertheless, the Commission must recognize the future possibility that changing circumstances may unexpectedly improve the fortunes of the railway. The Commission, therefore, recommends that decisions taken now should not be final but should be re-evaluated after an appropriate period of time.

In any case, it is imperative that the railway should not be allowed to continue only to die a slow and lingering death. If this were permitted to happen, four very serious consequences would ensue. Firstly, the process of decline would feed upon itself as decreasing traffic would accelerate the deterioration of service which would, in turn, lead to further traffic reductions. Secondly, death by attrition would be catastrophic for those employees who would be displaced by the reductions in traffic and who would be laid off on an irregular and unsystematic basis without adequate provision being made for their future. Thirdly, those customers who depend upon the railway for freight movements would be placed in the difficult position of having to decide whether to continue using a decreasingly efficient rail service or to spend large amounts of money converting their operations to other modes of transport. Finally, and most signifi-

cantly, the strong bargaining position of the Province would be considerably reduced. At the present time the Province could expect to receive a substantial "trade off" if it agreed that the railway should be abandoned. In ten years, if the railway were abandoned after a slow and lingering death, it could be abandoned over the protests of the Province and without any significant compensation.

The Commission is convinced that the railway should not be permitted to die by natural attrition. However, it seems inevitable that it must ultimately be abandoned. The Commission therefore considers that the most appropriate course of action is to recommend that a decision be now made to abandon the railway after a period of ten years. Given present circumstances, this appears to us to be the only justifiable recommendation that can be made. Since, however, the decision is such an important one, and since the railway must, under any circumstances, continue for at least five more years, and since further information will undoubtedly come to light with additional time, it seems sensible to leave a provision for this decision to be reviewed and confirmed or changed after a reasonable period of time, say five years, has elapsed. The Commission is, therefore, recommending a two stage process: firstly, an immediate but tentative decision to abandon the complete railway system after ten years with planning for the future geared to that decision; and, secondly, provision for the review and confirmation or rejection of that tentative decision after further time has elapsed and further information has been gathered.

One further point is of importance. The volume of freight handled annually by CN may be expected to drop to approximately 300,000 tons within the next year or two and to maintain that level for a further period of two or three years. Within the immediate future, then, provision must be made for approximately 100,000 tons of freight which will be diverted from the railway to some other mode of transport. Additionally, provision must be made for the annual increase in traffic which averages about 8%. Whatever the eventual decision concerning the railway, then, we will certainly need in the immediate future increased capacity and facilities for direct water, trucking and air freight.

The Commission proposes the following plan of action:

1. Since it is anticipated that the bulk of the freight lost by the railway will be diverted to direct water shipment which will also receive the largest proportion of the normal annual increases in freight traffic, appropriate action must be taken to improve harbour and freight handling facilities at St. John's and Corner Brook and to make such other arrangements as may be necessary to accommodate the increased activity at those ports.

2. The full range of rail service will continue for at least ten years. During the first five of these years, service will continue at a level equal, at least, to that presently obtaining. If the decision to abandon is then confirmed, the remaining period of five years will be allocated to a gradual phase-out of the operation.

3. Since the railway is not and cannot in the near future be economically viable and since the railway will perform an essential service for as long as it continues, the deficit from its operation should be paid directly by the Federal Government. This procedure will relieve CN of the responsibility for the deficit and of the necessity to compensate for it by cross subsidy from some other part of its operations.

4. During the next five years the railway should be maintained to at least its present standard, but no major capital expenditure should be made. Sufficient money should be expended each year to keep the roadbed up to its present standard.

5. CN should experiment with novel and more effective methods of attracting and handling traffic. This may, at first sight, appear entirely inconsistent with a decision to abandon the railway, and therefore, a word of explanation is in order. The Commission predicts that the railway in Newfoundland will not survive for more than ten years. But the Commission cannot be absolutely certain that this prediction is correct. If, indeed, the Commission is wrong in its analysis and predictions, it would like to give CN and its employees a chance to prove that point, and the Commission thinks it is wise and right that they should be assisted, within reasonable limits, to do so. The chances of being wrong are not sufficiently great to warrant a major experiment such as changing the line to standard gauge, but relatively minor expenditures for experimenting with new procedures for handling freight variations in freight rates on certain commodities and new techniques in salesmanship and customer relations are certainly justified.

6. Joint Manpower Adjustment Committees representing union and management should be set up to look after the marine/rail interface operations in Newfoundland. The purpose of these committees would be to encourage railway officials and workers to co-operate in developing and implementing improved methods of sales, service and efficient freight handling. The Committees would also have as their function the problem of dealing effectively with manpower reductions if such problems were actually encountered. This suggestion is elaborated in greater detail in a subsequent chapter.

7. After a period of five years a Federal-Provincial Advisory Committee, perhaps the Newfoundland Transportation Commission referred to in Chapter

XI, should review the decision to abandon the railway and to recommend one of two options:

a) That the tentative decision to abandon the railway should be rescinded and that the complete system should be continued indefinitely;

b) That the complete railway system should be abandoned.

In conducting its review, the Committee should consider, among other things, the number of businesses and industries which are then still substantially dependent upon the railway for their continued operation, the volume of traffic which the rail system then handles and the nature of any apparent trends, and the magnitude of the subsidy necessary to maintain the Gulf and rail system.

The following guidelines are suggested for decision making:

a) If the situation has changed significantly from the present in a positive direction, that is if more industries and businesses depended on the railway, if the tonnage handled by the rail had increased, and if the annual deficit had decreased, then the most appropriate decision would be for the railway to continue indefinitely.

b) If the situation remains basically unchanged from the present, or if the picture has changed significantly in a negative direction, that is if there were fewer businesses and industries depending on the railway, if the total amount of traffic had been further reduced and if the annual deficit has increased, the most appropriate course would be to confirm the decision to abandon the railway.

Since the decision to confirm abandonment of the railway seems to be at the present time the one most likely to be made, the Province should now negotiate with the Federal Government for a suitable change in the Terms of Union. During the time between the present and the review, the appropriate constitutional amendment might well be prepared for ratification. The railway would then be phased out over a further period of five years following the re-evaluation. During that time, adequate provision could be made and sufficient money made available to ensure that those individuals and companies who would be affected by the change would suffer the least amount of inconvenience and expense.

Nevertheless, the Province should not agree to the abandonment of the railway unless an acceptable substitute for the railway is provided. An acceptable substitute would appear to involve, as a minimum, the provision of a highway across the entire Province which would be suited to the increased traffic levels that would result from railway abandonment. Since the amount of road traffic would be considerably increased were the railway discontinued, a five year plan should be drawn up and as soon as possible to provide for this increase. Following the initial planning

and start of construction, a second five year plan should be prepared based on traffic projections and this would be followed by subsequent five year plans. These would be intended to ensure that at any given time the highway capacity would be sufficient to meet the projected needs for five years in the future. In this way, it should be possible to have an adequate road service provided well in advance of the time it would be required for actual increases in traffic. Monies saved by any phase-down and eventual abandonment of the railway could be used to finance, in part at least, the necessary upgrading after the first five year project. The first five year programme of upgrading would be funded by a 90% Federal and 10% Provincial contribution as presented in the section on highways. Also additional port facilities in Corner Brook and St. John's sufficient to meet the demands imposed by an increase in direct water movement would be required. These should be provided by the Federal Government.

The Federal Government should be required to ensure that sufficient funds are available to maintain the entire Trans Canada Highway in the Province and also the increased port facilities since these would have been provided in clear substitution for the rail service. The initial five year period would require the infusion of considerable amounts of "new money". Each subsequent stage would be financed primarily through reallocations.

If the recommendations of the Commission are accepted, the money saved by the abandonment of the railway will eventually become part of the total money which is recommended for allocation by the Newfoundland Transportation Commission referred to later. Under this concept, savings in one area could be reallocated to another area of transportation and, therefore, savings from the rail could be used to pay

for construction and maintenance of the second and subsequent phases of construction of the Trans Canada Highway.

If the railway is abandoned the question of the disposal of CN's assets in Newfoundland becomes an important consideration. The Commission will consider this question and present specific suggestions and recommendations in Volume II of its report. Savings would also be used to finance other areas of transportation as well, or even to finance economic development in the Province.

If the Province refused to co-operate in the required constitutional change, then, in the opinion of the Commission, there would be no other choice but to continue full rail service. The railway would continue indefinitely or until such time as it died a natural death, i.e., until little or no traffic were offering. The Province would, however, obviously not be then in as strong a position to negotiate Federal assistance for increased road and port facilities or, with indefinite continuation little or no savings would be available for reallocation.

It would also seem sensible for the above arrangements to apply to the branch lines as well. That is, they should be phased out at the same time that the main line is phased out. A special argument might be put forward in the case of the Bonavista branch. If Trinity is to be selected as an "Historic Village", then a ride on the railway from Clarenville to Bonavista, especially that portion around the loop north of Trinity, would be a popular tourist attraction. However, the cost of any maintenance of re-introduction of limited passenger service of the Bonavista branch would more properly be the responsibility of tourist rather than transportation departments.

Chapter IX

The Concept of User Pay for Newfoundland

Transportation in Canada may be expected to meet three essentially different sets of circumstances. These may be identified as follows:

1. *Transportation as an essential service.*

In any region or province, it is essential that transportation links exist whereby individuals and communities can be connected to one another and with the main transportation system of the country. Even in areas of sparse and scattered population, transportation, by at least one mode, is considered to be essential, and in such cases one mode will usually be selected as the most appropriate. In some parts of each province and in some regions of Canada this developmental phase of single mode transport will be followed by population growth which will make the development of competitive modes possible and virtually inevitable. In other areas of certain provinces, however, the condition of scattered population and large distances is a permanent one. Such communities will continue to rely on one essential mode of transportation. Nor is it to be expected that this mode will generate sufficient revenue to pay the full cost or even to cover completely the variable costs associated with traffic movement. In such circumstances the transportation service must receive financial support, usually through a direct subsidy or by having government assume responsibility for deficits.

2. *Transportation as a tool of economic development.*

Often the developmental economic policy of the country or of a province will require the provision of a necessary and particular transportation service. Thus the development of mines may well necessitate rail transportation and the optimum development of a fresh and frozen fish industry will require the develop-

ment of both road and air transportation. These services may not be commercially viable, at least at the beginning, but are nonetheless essential if economic development is to result. Where financial assistance is required to establish and maintain these services, it must be provided.

3. *Transportation as a commercial service.*

In many areas of the country where population density is great and where distances are relatively small, many competing modes of transportation develop. In these circumstances it may well be expected that each mode of transportation will generate sufficient revenue to pay for all its own costs.

The concept of "user pay" or of commercial viability applies only to the third situation described above. The basic conclusion of the MacPherson Commission was that most areas of Canada (except Newfoundland and certain northern regions) had reached a stage in the development of transportation services where commercial viability was possible and that competition should be encouraged. There is no suggestion in Canadian transportation policy, however, that the commercial viability or "user pay" policy is appropriate for situations 1 and 2, as described above. It is generally recognized that particular areas of the country have special problems and that these should be provided for when transportation policy and practices are being developed. This principle is clearly spelled out in The National Transportation Act, Section 3, especially at Sections d(i) and d(ii), in the following words:

National Transportation Policy

3. *It is hereby declared that an economic, efficient and adequate transportation system making the*

best use of all available modes of transportation at the lowest total cost is essential to protect the interests of the users of transportation and to maintain the economic well-being and growth of Canada, and that these objectives are most likely to be achieved when all modes of transport are able to compete under conditions ensuring that having due regard to national policy and to legal and constitutional requirements

d) each mode of transport, so far as practicable, carries traffic to or from any point in Canada under tolls and conditions that do not constitute

(i) an unfair disadvantage in respect of any such traffic beyond that disadvantage inherent in the location or volume of the traffic, the scale of operation connected therewith or the type of traffic or service involved, or

(ii) an undue obstacle to the interchange of commodities between points in Canada or unreasonable discouragement to the development of primary or secondary industries or to export trade in or from any region of Canada or to the movement of commodities through Canadian ports;

It is also recognized that economic development will sometimes be in conflict with commercial viability. The Minister of Transport assured the Atlantic Provinces' Premiers in Charlottetown on March 21, 1977, that though "commercial viability should be an objective, both in the operation of transportation services and in the provision of facilities and services in direct support thereof, nevertheless, whether the Government of Canada decides or the Government of Canada and one or more provincial governments jointly decide that any such service or facility is required for the achievement of national or rational social and economic development of objectives, that those objectives take precedence over the objective of commercial viability whenever the two are in conflict."

The objective of commercial viability, therefore, is appropriate under certain circumstances and is clearly inappropriate in others. In Newfoundland, at the present time, most transportation services fall within the latter category, that is to say, they are either essential social services or are required for essential economic development but are not commercially viable. Under these circumstances it is not to be expected that the "user pay" philosophy should prevail.

The Federal Minister of Transport is of the opinion (as stated in his speech in St. John's on March 20,

1977) that when a clearly identifiable situation exists requiring the departure from the principle of commercial viability within the federal jurisdiction, it should become the responsibility of the Federal Government to provide any funds needed to relieve the carrier of the necessity of charging excessive rates which would be passed on to his customers. The Federal Government would exercise its responsibility in this regard through direct subsidy, through paying the deficit of the operation in question, or through some other device. This situation will be described in greater detail in the section on subsidies in the next chapter.

As noted above, the policy of commercial viability has limited application within Newfoundland and Labrador at the present time. Nevertheless, in certain circumstances, where population warrants and where the provision of services on a competitive basis is well advanced, it is obvious that the principle of commercial viability will prevail. This will apply particularly to services such as taxi or bus services in larger towns and communities and in the foreseeable future to direct water transportation between St. John's and mainland cities, e.g., Montreal or Halifax. In time, it may happen that the "user pay" philosophy will become appropriate to a wider range of services but, at present, the Commission must reiterate its view that most of the Newfoundland transportation system requires substantial subsidy.

We must, however, be constantly aware that even when an essential service is to be given financial support, there is a clear obligation to get the best possible value from the money which is spent. This is not to say that the service should be provided as cheaply as possible. It is rather to say that the most cost effective method of providing the level of service required should be sought and implemented.

In some circumstances a service which cannot be commercially viable at one particular time may become so at a later date, at which time all subsidies should be discontinued. In respect to Newfoundland, it is likely, for example, that direct water transportation provided by a common carrier will not be commercially viable in the immediate future, and that subsidies will be needed to develop the service. Nevertheless, as time goes on and the volume of traffic increases it is anticipated that commercial viability will be established. Thus, it is our projection that in the foreseeable future, it will be possible to reduce the subsidy to the direct water mode of transport and eventually to eliminate it entirely. It is possible that a similar development will occur in respect to other transportation services as well.

Chapter X

The Question of Subsidies

During recent years, in excess of \$100 million each year has been spent in Newfoundland for operating subsidies to the various modes of transportation. In addition, considerable amounts were provided each year for capital expenditures related to transportation. However, subsidies are by no means unique to Newfoundland. A recently completed study (Transportation Needs and Availability Study in British Columbia, Ruppenthal, November 1, 1977) on transportation needs and availability in the northern coastal communities of British Columbia, noted that transportation subsidies have been part of the Canadian scene for many years. At one time or another every mode of transportation has been subsidized to a greater or lesser degree. Ruppenthal differentiates four different classifications of subsidies as follows:

- a) Direct (overt) or indirect (covert)
- b) Specific subsidies or cross-subsidies
- c) Promotional subsidies or continuing subsidies
- d) Intended subsidies or accidental subsidies

He elaborates on these distinctions in the following terms:

Subsidies classified as direct (overt) or indirect (covert). If a shipping company is paid \$1.00 per mile for every mile that its ships operate in subsidized service, that is a direct subsidy. The same company might effectively receive an equivalent amount as an indirect (or covert) subsidy if the taxpayers (through some appropriate agency) provide it with ships, docks, or other property which the shipping company uses and charges the shipping company less than the cost of providing the ships, docks, or other facilities. The financial impact on the shipping company would, in reality, be precisely the same. The direct sub-

sidy is clearly visible. The indirect subsidy is much harder to see. It is covert, disguised, or hidden.

Subsidies may be classified specific or as cross-subsidies. When the Canadian Transportation Commission provides a subsidy to the Canadian Pacific Railway designed to reimburse that carrier for losses resulting from the operation of certain passenger trains, that subsidy is specific. On the other hand, when the Canadian Pacific Railway hauls wheat at the statutory (Crow's Nest Pass) grain rates, it does so at a loss. If that loss is made up through profits on other traffic hauled by that railway, the other traffic may be said to cross-subsidize the grain traffic.

Subsidies may be classified as promotional (or developmental) subsidies or maintenance subsidies. Promotional or developmental subsidies are instituted with the notion that they will promote a particular mode of transportation or develop a particular industry, region, or geographical area. When promotional or developmental subsidies are used, there is an assumption that the subsidy will not be needed forever. It is assumed that at some point the transportation enterprise will be sufficiently mature that it will be able to survive and make it on its own.

Continuing (or maintenance) subsidies, on the other hand, are based on the assumption that the transportation company is unable to recover its costs and thus the subsidy must continue if the operation is to survive.

When the major (trunk) air lines began to provide service in the United States some fifty years ago, they did not have the wherewithal to operate

without help. Accordingly they were given promotional subsidies until such time as they could achieve maturity. The Civil Aeronautics Act of 1938, as amended, provides that the Civil Aeronautics Board may provide such subsidy payments to foster the development of aviation. But at the present time no truly 'trunk' air line in the United States receives any subsidy payments. (There is technically one exception. Hawaiian Air Lines is legally classified as a 'trunk' carrier in spite of the fact that it does not operate outside of the geographical limits of Hawaii. It actually operates as a regional carrier and is treated as are other regional carriers, although it operated without subsidy after Aloha Airlines was authorized to compete in its markets.)

By contrast, the three helicopter air carriers certificated by the Civil Aeronautics Board (in New York, Chicago, and Los Angeles) have thus far been unable to produce enough revenues to cover their costs. There is considerable doubt as to whether they ever will be able to do so. The subsidy payments paid to them, are, therefore, in the nature of continuing or maintenance subsidies.

Subsidies may be classified as intended or accidental. The payment of a subsidy may result from a considered decision on the part of some governmental agency and thus may be intended. An airport may be built by the taxpayers and the user charges set at such a low level that no informed person expects that the taxpayers will recover the cost of the facility through user charges. That is an intended subsidy. On the other hand, when the St. Lawrence Seaway was built, the Canadian taxpayers were told that the tolls and other revenues from the Seaway would be sufficient to cover all of the costs of constructing the Seaway together with its operating costs plus a reasonable profit besides. Actually the tolls and revenues from the Seaway have not been sufficient to cover the costs of operations—let alone the costs of construction. Thus the taxpayers of Canada have paid an unintentional subsidy to the users of the Seaway.

Another form of subsidy not noted by Ruppenthal is a variety of cross-subsidization in which one element of a particular system will subsidize another element of the same system. For instance, air passenger revenues may be subsidizing air freight.

Subsidies may also be extremely subtle and not obvious at first glance. For example the Government of Canada might guarantee a loan to a company or service, thus providing a lower interest rate than would normally be paid, or it could provide a low interest loan itself. Since this low interest money would not be available to other companies or ser-

vices, the resulting savings might constitute a subsidy.

Direct subsidies may take one of three forms. They may provide a specific amount of assistance, say \$7.00 per ton or \$1.50 per mile, or a total amount (say \$1 million) per year, or they may take the form of underwriting the entire deficit of a particular operation in a year. In the last case where no upper limit is specified the absence of an incentive to keep costs down may lead to an alarming escalation of those costs over a period of time.

Within the Newfoundland context, examples of most types of subsidies can be found. Direct and specific subsidies are provided by the Federal Government in underwriting deficits on the Gulf and in the coastal operations and each of the intra-Island ferry services, and in the amount per ton paid to Newfoundland Steamships Limited. Indirect subsidies are provided in the way of icebreaking facilities and services, navigational aids, airports and navigational systems to facilitate air traffic and in provision of roads. An example of a cross-subsidy is the deficit incurred by the Newfoundland rail operation which must be made up from general revenues derived from other operations within the system. All of those subsidies are, apparently, intended and all are continuing rather than promotional.

One further distinction in respect to subsidies must be made. A subsidy may be made directly to a particular system, a railway or a shipping company, for example, or to the individual or the company which engages the services in question. Further consideration will demonstrate that the consequences of such an allocation can be extremely important.

Suppose—to take a hypothetical example of a subsidy being paid directly to the carrier from the Newfoundland situation—the transportation of goods to Newfoundland by a combination of rail and gulf crossing actually costs \$80.00 per ton. A subsidy of \$65.00 per ton can be paid which would reduce the cost to the shipper to \$15.00 per ton. Direct water shipment may cost only \$20.00 per ton, but if no subsidy is paid, then the resulting cost to the shipper is \$20.00 per ton. Given these circumstances, the shipper would undoubtedly select the mode of shipment for which he had to pay \$15.00 rather than that for which he had to pay \$20.00 per ton. This would be so, even if there were definite advantages for the customer in the direct water shipment. That is, the direct water shipment might provide a somewhat better service in terms of total time taken, dependability, door to door delivery, etc., but unless these advantages were such that they could totally compensate for the \$5.00 per ton difference which the shipper would be required to pay, the shipper would, quite understandably, elect to ship by the method for which he would pay least. This would mean, in effect, that an extremely expensive

and inconvenient service would persist while the cheaper and more effective service would suffer in comparison and might eventually be forced out of business entirely.

In order to avoid the detrimental effects which subsidies may have, it has been suggested that subsidies not be paid to transportation companies or services directly but should be paid to individuals or groups who could then select and provide a subsidy to the most effective and efficient mode of transportation. In the former example, if a subsidy were provided to individuals or companies, they would undoubtedly select and use the subsidy to assist the direct water movement, thus encouraging the most effective mode to become more viable.

It was for this reason *Transportation Needs, an Availability Study in British Columbia* recommended that all subsidies should be phased out over a period of time and replaced by a transportation allowance which would be paid directly to the individuals concerned. That is, each individual would be given a specific amount per year which would be intended to compensate him for additional transportation costs. The individual would then be able to subsidize, in his own way, the modes of transport which provided the most effective and most convenient service. In this way, subsidies would have the positive effect of encouraging the development and maintenance of the most cost effective transportation system.

In accordance with this view, it has been recommended that the subsidies paid under The Atlantic Region Freight Assistance Act should be paid to the shipper rather than to the carrier. However, the payment of a subsidy directly to the customer or the shipper, desirable as it may be in theory, would undoubtedly, in practice, encounter many administrative difficulties. Indeed such administrative difficulties have proven to be so great in the past that they are for all practical purposes unworkable. Thus, there are few, if any, actual examples of large scale subsidies being paid directly to the customer.

Another important question which must be considered, is the effect which a subsidy is intended to have. The direct subsidy which has had the most wide ranging effects on the Atlantic Provinces is, no doubt, The Maritime Freight Rates Act (MFRA) and its extension, The Atlantic Region Freight Assistance Act (ARFAA). The rationale for the original act in 1927 was to provide a method of subsidizing the cost of moving commodities from the Maritimes so that in respect of transportation costs, such commodities could be competitive in the central Canadian market. The final clause of the resolution that introduced the MFRA stated the case in these words:

To enable the products of the Western and Maritime Provinces to reach more readily the markets so developed by the tariff, the special transporta-

tion burdens borne by these provinces should be shared by the whole Dominion either by contributions to long-haul freight costs or by assistance in some other form.

Behind this statement was the concept of economic development and the hypothesis that Maritime industry would develop in competition with that of Ontario and Quebec if its products could enter the large North American market free of the incubus of extraordinarily high freight costs.

In an assessment of the effects of The Maritime Freight Rates Act, Howard J. Darling, in October, 1974, noted that *it is fair to say the subsidy has benefited, at least to some degree, those commodities which, because of their nature, would probably have continued to move by rail in any case. The main volume has comprised coal, forest products, potatoes, sugar and berries, industrial boat materials.* He also noted that the subsidy has had the effect of making certain commodities captive to rail which could have been transported more economically by road or other means. He concluded, however, that the Act had not had the intended effect of encouraging economic development.

There is no evidence that it has created conditions favourable enough to satisfy Maritime demands for access to the markets of central Canada. Maritime complaints today sound remarkably similar to those of fifty years ago, just prior to the appointment of the Duncan Commission.

The costly provincial ventures into industrial development have served to emphasize the fact that much more than lower freight rates is required to ensure industrial development in the Atlantic area. The MFRA has probably not been a decisive factor in any of the new industrial developments that have taken place in the area. The present, more realistic, emphasis on secondary industries rather than on marginal resources will further decrease the relative importance of freight rates. The Atlantic Development Council in a recent report reflects this shift in emphasis.

Transport costs are probably declining in relative importance as a location factor and, for many industries, are likely to be only a small item in the total cost.

In the same vein, Hugh Whelan, in an article published in *The Prospect of Change* (1965), states:

There is a tendency in some quarters to over stress the significance of such rate reductions in regional gross processes. The general effect of those railway subsidies on Atlantic regional development has been of little consequence. It is true that certain Atlantic manufacturers are rated by such reductions and that a few enterprises have found it possible to locate in the region because of the policy. But recent studies have

shown that in the aggregate, regional trade flows are heavily oriented toward export markets where the subsidies are of little economic significance. Throughout the present century, in fact, the Atlantic area has been unable to respond in any significant way to the pull of central Canadian consumer markets and a transportation policy aimed at fostering 'transcontinentalism' has not, in the absence of other measures, succeeded in any appreciable degree.

The subsidy assistance provided under the MFRA was extended to trucking by the ARFAA of 1969. The principal effect of the ARFAA has been to encourage the growth of trucking by removing the competitive edge which the railway once enjoyed. There is, however, no evidence that this Act has been any more successful than the MFRA in attaining the objective of industrial development.

The intention of the Ministry of Transport in 1970, for both the MFRA and the ARFAA, was to phase out the 20 per cent subsidy on freight moving within the Atlantic Region. It was also intended that in addition to the 30 per cent outgoing subsidy, a further 20 per cent would be applied to selected commodities, and this program is now in effect.

With regard to the proposed decrease from 20 per cent, the subsidy was actually decreased to 17½ per cent in 1970 and to 15 per cent in 1972, but no further decreases have occurred since 1972. In fact, the 15 per cent subsidy was to be extended to air and direct water movements in 1978, but with the intention being that all "intra" subsidies be applied to selected commodities only.

As Darling states: *It remains easier to plan for the reduction of a general subsidy than to put it into effect. Experience has shown that general subsidies are not easily manipulated but rather tend to congeal in an irremovable stance such that new policies have to be built over and around them.*

Subsidies, then, in some cases fail to attain the objectives which it was intended that they achieve. In addition to this there may be actual disadvantages which are associated with the granting of subsidies. For example, as noted above, subsidies may perpetuate the continuation of an inefficient and expensive mode of transportation while preventing or delaying the development of less expensive modes of transportation. Also, a company or a service which receives a large subsidy may thereby be permitted to offer its services for rates which are sufficiently below the market price to interfere with legitimate competition. Thus, if one company or one mode receives a subsidy which permits it to offer rates which are slightly lower than prevailing rates, other companies in the same mode and companies in other modes may be hard pressed to meet these rates and remain in business.

Subsidies are extremely difficult for business concerns and companies to deal with, because they produce a situation which is totally out of the control of the businessman. That is, if legitimate competition is able to lower prices or if the market conditions vary, the businessman is able to respond in an appropriate manner. However, if a competitor in a competing mode receives a transportation subsidy there is no appropriate way in which the businessman can react.

Subsidies also tend to produce patterns of traffic and of handling freight which may not only be inefficient but may actually lead to waste and the misuse of funds unless careful controls are applied.

Rail passenger services are heavily subsidized, but the movement of passengers by bus is not subsidized. The rationale for subsidizing the train passenger service between the Maritimes and Montreal, for example, is that it is considered to be an essential service even though an alternate surface mode of transportation is available by bus. A bus service between Deer Lake and St. Anthony, on the other hand, does not qualify for a subsidy even though it is the only surface mode available to the people in that area. Surely if the Government, as a policy, intends to subsidize passenger travel (surface) in Canada then it should apply to all surface modes; otherwise it discriminates against people in other areas of Canada who do or do not have a rail passenger service.

Subsidies can also generate a climate of suspicion and hostility. Full information about subsidies is rarely or ever made public and, moreover, some widely distorted misconceptions are circulated freely. Some companies feel that their rights and viability are being interfered with by actual or proposed subsidies to other companies. This results in secret negotiations, subtle and not so subtle forms of political pressure, endless trips to Ottawa and much time wasted which could be put to more effective use if full information about subsidies were readily available and misconceptions corrected.

One further problem with transportation subsidies is noted in a recent Ontario Economic Council paper entitled "An Economic Analysis of the Hall Commission Report" (Aboucher, 1977). Aboucher questions the rationale behind selecting wheat as one specific commodity which requires freight rate assistance and challenges the Hall Commission recommendation that the Crow's Nest Pass rate should be maintained.

Aboucher asks:

Why does this mean that the transportation (of grain) should be subsidized? To suggest that this should be the case would also require support of the view that wood pulp should be subsidized because it is an important export heavily dependent upon transportation, likewise with other raw materials and other agricultural products. But why should it stop with primary inputs? And why

with transportation services? Why not subsidize anything that might become an important export? Why then restrict the subsidy to important exports and not extend it to any potential export on the ground that lots of little exports can become the equivalent of a single big export?

Finally, the Commission notes one other particular problem area. Freight traffic generally consists of a variety of products which vary in revenue to the carrier. Normally, profits are higher in the case of high value, high density goods. A common carrier would be expected to transport a balanced proportion of all types of traffic, whereas a competitor might choose to carry only high value, high density goods. By so doing, the latter could perhaps operate without a subsidy while the former might well be constrained to seek compensation for carrying a proportion of high volume, low value commodities. It might be tempting to believe that when one carrier operates without a subsidy, the other should do likewise. In fact, however, the effect this sort of competition has is to increase the proportion of low value goods which the common carrier transports and, therefore, to establish his need for a larger rather than a smaller subsidy if his service is to remain viable.

Turning to the specifics of the Newfoundland situation the Commission proposes that where transportation subsidies are needed to encourage economic development, it will be necessary to specify the particular commodities which are to be subsidized. It would make sense to provide a subsidy for raw materials being imported into an area, e.g., Stephenville, where a manufacturing process would add to their value. On the other hand, it would appear rational to reduce or eliminate the subsidy on products which can be grown or produced within Newfoundland, including such obvious examples as the common root vegetables and manufactured items such as window boxes.

The Commission is pleased to see that the four Atlantic Provinces have entered into discussion with the Federal Government to consider alternate proposals for The Maritime Freight Rates Act and The Atlantic Region Freight Assistance Act and have already agreed to specific alternate programmes which hopefully will be more beneficial to the region. In spite of this, however, the Commission is aware of instances where there is some evidence to show that the existence of these subsidies acts as a deterrent to local industry rather than an advantage. The case in point is those products which are produced elsewhere in the Maritime Provinces and which, because of the subsidy, can be marketed in Newfoundland at a cost below Newfoundland's production costs. The result is that local production is discouraged, if not curtailed. Volume II of the report of this Commission will contain a list of commodities which the Commission feels

should not be subsidized. It should also be noted that the application and removal of subsidies to and from selected commodities should apply to all subsidies and not only to those provided by The Maritime Freight Rates Act and The Atlantic Region Freight Assistance Act.

It is obvious that certain forms of transportation, for example, that serving the Gulf route, will require a continuing subsidy for the foreseeable future. Indeed, the costs involved on that particular route are such that they could not be recovered by direct charges except at astronomical expense to the consumer. The travel of passengers across the Gulf will continue to be subsidized and the amount of the subsidy may well increase in the foreseeable future. With regard to goods, as long as businesses depend upon the rail-Gulf route, it will be necessary that subsidization of goods across the Gulf, and *via* rail across Newfoundland, should continue. The subsidy on the Gulf, however, should be such that the most effective and efficient method of freight handling is encouraged. Furthermore, the subsidy should be such that it does not preclude the possibility of shippers choosing an otherwise more desirable mode of transportation. In short, a heavily subsidized system should not be allowed to prevent the development of equally or more efficient systems that would require much smaller subsidies.

In general, there are several principles which can be applied to subsidies within Newfoundland, the first three of which are similar to those which have been specified for transportation to northern communities in British Columbia:

1. Whenever possible, the subsidies paid should be direct and specific.
 2. The use of subsidies should encourage the most cost effective and efficient mode of transportation.
 3. Whenever possible, the subsidy should be promotional and for a specific period of time. It should be reviewed periodically and if it is not serving the purpose for which it was intended, its applicability should be reconsidered with a view to its reduction, modification, or elimination.
- In fact the goal of the subsidy programme for all except the Gulf route should be the eventual elimination of all subsidies so that services can operate in a free, competitive atmosphere without the difficulties and distortions which subsidies can produce.
4. For the immediate future, all companies which operate services which are identical or highly similar within the same mode should be eligible to receive the same level of subsidy. It is of course important that each service which receives a subsidy should provide the same type of service and transport the same type of commodities under the

same circumstances, (e.g., be classified as common carriers).

5. The level of a particular subsidy should not rise except after the most careful scrutiny, and after complete justification has been provided. Companies which have demonstrated their viability by several years of continued service should be able to negotiate the method by which the subsidy will be paid over a period of time. For example, a company should have the option to "front-end load" a subsidy if it wishes to do so. That is, a company which is to receive a subsidy of \$10.00 per ton for a

period of six years may opt to receive \$15.00 per ton for years 1 and 2, \$10.00 per ton for years 3 and 4 and \$5.00 per ton for years 5 and 6, in order to assist purchase of equipment necessary to improve the service.

6. Subsidies should be such, and should be awarded in such a manner, as to encourage the process of economic development in Newfoundland. Plans should, therefore, be made to increase the amount of subsidy on certain commodities, while reducing or removing it from others.

Chapter XI

Federal-Provincial Co-Operation

From its own investigations, and from some of the submissions made at the public hearings, the Commission is satisfied that in respect to transportation there exists a great deal of mutual misunderstanding and mistrust between the Federal and Provincial Governments. It is clear from an examination of the events of the past few years that there has been a regrettable lack of prior consultation and agreement between the two levels of Government before the announcement and implementation of certain plans and proposals. Indeed, it is not an exaggeration to say that the attitude has, at times, been one of confrontation rather than co-operation.

Such an attitude does not lead to maximization of benefit. Any hostility or mistrust injected into a system must cloud the efficient operation of that system. Since the Newfoundland transportation system depends on activities of the Federal Government within its sphere of jurisdiction, and of the Provincial Government within its sphere, and to some degree on an overlapping with regard to financing, it is clear that co-operation between Governments is a key factor in the development and operation of any efficient transportation network. That a certain measure of mistrust and ill-will has developed is indeed unfortunate and efforts should be made to ensure that, in the future, a more genuinely co-operative atmosphere is generated.

Let us examine briefly the attitude of the Provincial Government toward the Federal role in respect to transportation in Newfoundland. That role includes formal responsibility for financing and providing the Gulf and Coastal Services, and all other CN operations in Newfoundland; the subsidization of the intra-Island ferry services and of freight rates on direct

water, rail and truck traffic; direct contributions to harbour, airport, navigation and ice clearing facilities, and to road construction through Department of Regional Economic Expansion (DREE) grants. In the face of this substantial federal involvement there appears to be a tendency for provincial authorities, before they make their own plans for expenditures on transportation, to wait and see what the Federal Government will pay for. This makes the assigning of priorities at the provincial level virtually impossible. Except in the case of DREE grants where consultation does take place, there is an unfortunate lack of prior consultation between the two governments even when major expenditures and important decisions are being contemplated. Moreover, the Provincial Government appears to be strongly ambivalent concerning such consultation, or lack of it. On one hand, it complains loudly about the lack of consultation and about the quality of decisions which are made; on the other hand, it seems most reluctant to participate in the formulation of certain policies and the establishment of procedures in those areas that have been under federal jurisdiction, as for example, intra-Island ferries. However, from an objective point of view, it seems reasonable that the Provincial Government *should* take an interest in sharing decisions designed to make the services more cost effective, with the understanding that any resulting savings could be reallocated to other areas of transportation.

The Federal Government appears to be concerned with cutting down expenditure and this concern has sometimes led to reductions or changes in the levels of service with resultant cries of anguish from the Province. The Commission's impression, after many discussions with relevant departments, is that the

federal authorities are genuinely interested in Newfoundland, and within limits, attempt to do their best to see that improvements are made. However, at times, they may not put sufficient effort into initiating discussion and consultation with the Province and consequently they are frequently and unfortunately ignorant of important local priorities and sensitivities and are often surprised when their well-meant efforts meet with criticisms and resistance in Newfoundland.

It would obviously be desirable if this situation could be improved, as it would be if the Province were formally consulted and could offer advice and assist in decision making in certain key areas:

1. It is extremely important, for example, that the Newfoundland Government should be involved in establishing standards and levels of transportation services to and within the Province. An opportunity for such involvement will arise in the near future as the Federal Government and CN Marine Corporation meet to establish standards for the level of service to be provided on the Gulf. It is extremely important that the Province should be directly involved in this process. It is also important that it should have some responsibility for monitoring the resulting service to ensure that established standards are actually being met by those responsible for the operation.
2. The ideal mechanism to ensure optimum development and operation of the transportation system in the Province of Newfoundland would be to have all aspects of the system, both intra-provincial and extra-provincial, regulated by a single authority. However, it is recognized that establishment of such a system may cause difficulties concerning the setting of and adherence to certain national standards to carriers which operate in more than one province. Therefore, it seems that the best practical requirement would be that existing regulatory methods continue with, for example, air transport being regulated by the CTC, motor transport by the provincial motor carrier authority, and the like. At the same time, mechanisms must be developed to ensure that these regulatory bodies co-operate and consult with provincial authorities in the setting of standards and regulations, and that regulations in all areas be continuously monitored.
3. In the area of subsidies, it would seem desirable that the Federal/Provincial Transportation Commission, referred to elsewhere in this chapter, be responsible for the overall evaluation of carriers and the recommendation of subsidy levels for such carriers. By this mechanism, provincial involvement in decision making as to all government expenditure for subsidies would be assured.
4. It is important that the various transportation services to and within Newfoundland should be

co-ordinated and that co-operation, wherever possible, between the various services should be encouraged. Deficiencies in existing services must be identified and the need for special services to satisfy public requirements must be ascertained.

Further, whenever significant changes in transportation services are contemplated, it is important that they be considered by Provincial authorities and if possible, openly debated, before the event, to ensure the protection of the "public interest". The process of open discussion will not obviate the possibility of compromise agreements and trade-offs which are in fact essential to the development of a transportation system. It would, however, eliminate the difficulties associated with trade-offs which, having been agreed upon in secret negotiation, are greeted with popular suspicion or outright hostility if and when they are eventually made public.

The objectives identified above might best be met by the creation of a federal/provincial "Newfoundland Transportation Commission" (NTC) composed of, say, five members: two to represent and to be chosen by the Provincial Government, two to represent and to be chosen by the Federal Government, and a Chairman who would be acceptable by both parties. The responsibilities of this body would be both administrative and advisory and would include the following:

1. Making representation to appropriate agencies concerning the standards which are to be set for transportation services in Newfoundland, including standards for the Gulf and Coastal services and eventually for the bus service, and, as well, maintaining a watching brief with respect to those services to ensure maintenance of standards at the agreed level.
2. Monitoring regulations for all modes of transportation in Newfoundland, and recommending thereon to the regulatory authority or government concerned.
3. Arranging for public hearings to be held concerning any major proposed changes which are to be made in Newfoundland transportation and making recommendations arising from these hearings to the appropriate government agencies.
4. Co-ordinating transportation services within Newfoundland.
5. Assuming responsibility for continuing research including the gathering of data concerning existing transportation, the introduction and evaluation of new methods and procedures and other appropriate matters.
6. Evaluating the effectiveness of subsidies and making recommendations concerning their allocation both in respect to the total amount of subsidy to be provided in any given year and the apportionment of that total among the various transportation

systems, and further, in respect to proposed new services, recommending the additional amount of subsidy required to provide those services.

Such a permanent NTC would require a small secretariat including, in addition to clerical staff, a Research Division to conduct the continuing research referred to above, and which would have direct access to the research departments of the Ministry of Transport. Additionally, the NTC should have access to expert advice on each transportation mode. A budget of \$500,000 to \$1,000,000¹ per year to be shared by the Provincial and Federal Governments should be adequate for all the activities of the NTC except for research, which would be funded separately.

The NTC would not be directly involved in policy-making which is the prerogative and the responsibility of government. Nevertheless, the NTC should be asked for advice concerning policy matters and should assist in the implementation of policy and in the administration of regulations. The NTC would also serve as "transportation ombudsman" for the Provincial Government and for the citizens of Newfoundland.

The giving of advice and recommendations concerning the allocation of subsidies would constitute an extremely important part in the activities of the NTC. Essentially there would be two levels of such advising. On the most general level, the NTC would advise as to the total amount of subsidy needed to operate the Newfoundland transportation system (i.e., the Gulf subsidy, the coastal subsidy, the railway deficit, direct water subsidy, intra-island ferry subsidies, etc.) and, on the more particular level, it would advise concerning specific allocations from within the total amount. Before the NTC commences its activities, the total amount of subsidy allocated to the Newfoundland system would be determined, and the Province would undoubtedly require a guarantee from the Federal Government that this amount would not decrease but, in fact, increase through annual inflation and when special projects were undertaken. The NTC could then recommend that the amounts within that total be reallocated from one area of service to another. If money were saved by reducing or eliminating rail service, then this money could be used for an increase in direct water subsidies or highway construction. Money saved on the Gulf or coastal operation could be used to support bus services to the more remote areas of Newfoundland, or to provide better accommodation and facilities near the Trans Canada Highway.

The total would *not* include any money necessary to raise basic transportation services in Newfoundland to a level comparable with that already existing in other provinces. That is, a special arrangement between the Province and the Federal Government would provide for the funds necessary for the proposed upgrading of the Trans Canada Highway. Similarly, separate agreements would be worked out between the Federal and the Provincial Governments for special projects such as the Trans Labrador Highway or the building of a tunnel under the Strait of Belle Isle.

The NTC would also recommend the allocation of subsidies to specific carriers. The NTC would establish criteria which would have to be met in order for a subsidy to be awarded. That is, subsidies would only be given to carriers which had or could demonstrate their ability to provide a continuing service. Carriers would have to provide the same basic service, i.e., act as a common carrier, in order to be eligible to receive a subsidy. Being eligible to receive a subsidy would, of course, not guarantee that a subsidy would be given. A separate judgment would have to be made for that decision, but it would guarantee that consideration would be given to the request. The NTC could recommend that special financing could be worked out for carriers which had clearly and definitely demonstrated their viability.

(The NTC, of course, would have no direct authority or jurisdiction over the transportation budget of the Province of Newfoundland. The Province would set down priorities and would allocate funds in accordance with these priorities. Nevertheless, the NTC should be prepared, upon request, to offer advice to the Province.)

The essential principle is that the existence of the NTC would give an opportunity for the Province to have a direct say in the allocation of Federal funds for transportation in Newfoundland. This would be an important development. The specific mechanism by which recommendations would be made for the allocation of funds might take various forms. In the past, consultation between the two levels of government has apparently been successful in the case of DREE agreements. Perhaps similar procedures and agreements would be possible in the area of transportation as well. Other mechanisms are possible and indeed the agreement outlined above is tentative and intended as a suggested guideline only.

The Commission will be making specific recommendations in Volume II of this report which will outline in detail the structure of the NTC, the funding required, the areas of responsibility and the objectives which the NTC would be expected to achieve.

¹ Here and in the remaining pages of this report specific sums of money are mentioned. These are intended as indications of what approximate level of expenditure might be required. They are not intended as firm, specific figures. The second volume of the report of the Commission will include firm and specific figures together with the rationale and justification of each figure.

Continuing Research

During the past decade there have been at least 60 separate studies (excluding those conducted by this Commission) on various aspects of transportation in Newfoundland. At a conservative estimate, they have cost in excess of five million dollars. However, when the Commission reviewed these studies, it found that the vast majority were to one degree or another unsatisfactory for its purposes. This was essentially because they represented a piecemeal or *ad hoc* approach to the resolution of specific problems rather than an organized, coherent plan of action guided by a set of clearly established policies. Thus, in some instances, one area has been studied two or three times while other very important aspects of Newfoundland transportation have not been examined at all.

Most of the studies have not been made public or given wide circulation. Well over half of them are labelled confidential and are for internal use only. Of those which have been approved for distribution to the public, e.g., the Corridor Study, the distribution has been very limited and relatively few people in Newfoundland have had access to them. Furthermore, remarkably little action has been derived from them. Indeed, many make no specific recommendations at all, and even where such recommendations are made they have been virtually ignored by the decision makers.

Despite the plethora of previous studies, the biggest single difficulty facing this Commission as it approached its task was that of finding a Research Director. It was decided, for obvious reasons, that such a person must be one familiar with transportation in both its theoretical and practical aspects, and particularly, with the special conditions existing in Newfoundland and Labrador. Most previous studies had been carried out by mainland firms or by research groups internal to the Ministry of Transport or CN. This Commission could not expose itself to the legitimate criticism that its conclusions were based on research conducted by people who were essentially ignorant of the Newfoundland situation. Neither could it depend on, to any great extent, the research facilities of the Ministry of Transport or of CN since to have done so would have resulted in the suspicion that its data was not sufficiently objective and might in fact be seriously biased.

The Commission was, therefore, fortunate to obtain the services of Mr. Mervin Andrews of the Faculty of Engineering at Memorial University. He had already conducted a number of studies on Newfoundland transportation, had a sound theoretical and practical background, and, furthermore, was a native Newfoundlander who had travelled extensively throughout all of Newfoundland and Labrador.

Mr. Andrews reviewed the earlier studies, identified the gaps in the available research data, and then set about the task of obtaining information that would fill these gaps. Additionally, he was faced with the problem of updating the information provided in existing reports.

Primarily as a result of the research conducted under the auspices of this Commission, it is believed that a comprehensive and up-to-date picture of Newfoundland transportation is now available. However, the data, too, will soon be outdated unless provision is made for continuing research on transportation in Newfoundland to be carried out in an orderly and systematic manner. Such a research programme would be greatly facilitated by the creation of a Research Centre on Newfoundland Transportation. The duties of the Centre would include, *inter alia*, the following:

1. To gather basic information to comprise an annually updated inventory of facilities and services in Newfoundland, which should be made available to the public.
2. To address specific questions such as might be posed by Federal or Provincial Governments or by other legitimate interests, concerning any aspect of the transportation system or of public reaction to transportation policies and procedures.
3. To initiate specific research projects in Newfoundland transportation, to encourage the use of research by those involved in the practical aspects of transportation, and to act in an advisory capacity to all those so involved. Further, in respect to new services, to provide for the gathering of accurate base data and to establish, or to advise upon the establishment of, appropriate control procedures to monitor results in relation to expectations.

The Centre which would require, initially, a budget of approximately \$500,000 to \$1,000,000 per year, should consist of a permanent Research Director with an appropriate staff and should be funded jointly by the Federal and Provincial Governments, with the former providing 90% of the financing. It would operate under the administrative control of the Newfoundland Transportation Commission but might very well be established on the campus of Memorial University. In any case, it should have an Advisory Committee to include some academics familiar with transportation problems, as well as representatives from transportation services. It should be noted that the year budget would not, in fact, be "new money" since, judging by past experience, it can be assumed that at least that amount would continue to be spent annually on Newfoundland Transportation Studies. If such sums are to be spent, it makes good sense to ensure that the greatest possible advantage derives from the expenditure. To achieve this purpose and to guarantee co-ordination of effort, responsible planning and

public awareness, the Commission attaches the highest importance to the immediate creation of such a Research Centre.

Local Autonomy and Responsibility

Within the general area of the relations between Newfoundland and other areas of Canada, the Commission has been made aware of considerable dissatisfaction and, indeed distrust, by Newfoundland users of transportation services concerning the process of decision making within the larger transportation services operating in the Province. The problem

seems to be largely caused by the chains of decision making and command, often ending at their highest levels in centres outside the Province. The Commission is of the opinion that the perceptions of the public concerning this situation are of great importance, and since the Commission has been unable to complete its investigations into this area, detailed analyses and recommendations will be left for inclusion in the second volume of the report of the Commission.

Chapter XII

The Use of Hovercraft in Newfoundland

This section is included not because the Commission feels that the Hovercraft is the answer to the Newfoundland Transportation System or because it is the most important innovative concept in the area of transportation. Rather, it is included as an example of the sort of dramatic change in transportation which we may expect and must prepare for in the foreseeable future.

Hovercraft have been used in England to provide commercial ferry service for almost 15 years. Hovercraft service is provided between Southampton and Cowes on the Isle of Wight by small SRN-6 craft. The SRN-6 has the capacity to take 35 passengers, but does not take vehicles. The basic craft can, however, be modified to take six to eight vehicles and 12-20 passengers.

Hovercraft service across the English Channel has been available for over 10 years. At present the service is provided by two companies, Seaspeed and Hoverlloyd. Seaspeed is operated jointly by the British and French rail systems. The service operates from Dover to Bologne return, and Dover to Calais return. Up to the present time, the service has been provided by four craft. The two British craft are Mountbatten class SRN-4 which each have a capacity for 30 cars and 250 passengers. Hoverlloyd, a private company, operates a service between Ramsgate and Calais, using four SRN-4's which have been modified and enlarged so that they can take 37 cars and 280 passengers.

The craft are capable of speeds up to 60 knots and cruise at approximately 40 knots. The 20-mile crossing takes about 35 minutes from terminal to terminal. The craft can be completely unloaded and loaded in 15 minutes so that, including time for cleaning, the

craft can leave port each hour, on the hour. The craft can operate even when the Channel seas are rough and the wind up to a gale force 7. Hoverlloyd will operate in virtually any weather in which a conventional ferry will operate, although the time of the crossing will be increased considerably. The Seaspeed officials will not operate the Hovercraft if it appears that the journey will take more than one hour. Since the same company operates conventional ferries from Dover, the operation is sufficiently flexible to permit changing the passengers from the Hovercraft to conventional ferries in rough weather or in any emergency situation. The ride is rough, especially in choppy seas and winds, and noisy, but many travellers prefer the rapid ride to the slower 1½ hour crossing by conventional ferry. During 1977, over 40% of those who travelled across the Channel elected to do so by Hovercraft. The cost of the journey by Hovercraft is approximately the same as that by conventional ferry.

The operation of the Hovercraft is exceptionally safe and no serious accident has occurred in any of SRN-4 craft since they have been in commercial operation.

A breakthrough in Hovercraft operation is occurring at the present time. British Rail has added a 55-foot section to one of its SRN-4's to give it an overall length of 180 feet. This stretched or "Super 4" has a capacity of 60 cars and 400 passengers. It can attain a speed of 75 knots and cruises at 60 knots. The almost 50% increase in capacity and the considerable increase in speed is accompanied by an increase of only 15% in fuel consumption. The additional length makes possible a much smoother ride and the craft can operate in any weather in which a conventional



1.



2.



3.



5.



4.



6.

1. SRN-6
2. SRN-4 SEASPEED, *'The Princess Margaret'*
3. and 4. SRN-4 HOVERLLOYD
5. SRN Super 4, SEASPEED, Britain, *'The Princess Anne'*
6. SEADAM 500-02, SEASPEED, France, *'Ingenieur Jean Bertin'*

ferry can operate. In the spring of 1978, the French introduced a large Hovercraft, the SEDAM 500-02. This craft has two unique features—it has two deck levels, the lower for cars and the upper for passengers, and it has three engines mounted in the rear. In contrast the British Super 4 has four engines mounted one at each corner. The “500” is less noisy than the Super 4 and provides better visibility for the passengers but it is not as maneuverable and is said to be experiencing some minor operating problems. Nevertheless, it appears that in the near future, much of the traffic which crosses the English Channel will do so by one of the larger Hovercraft.

The use of Hovercraft in Newfoundland appears to be an interesting and exciting possibility. The “Super 4” Hovercraft could make the 60 mile journey between Aspy Bay on Cape Breton Island and Port aux Basques in a little over 60 minutes. It would not be necessary for passengers to report with their vehicles more than 30 minutes before the crossing, so that the total time for the crossing would be just over 1½ hours, in comparison with the 7-8 hours which now elapse between check-in time and the termination of the crossing by conventional ferry. The craft could turn around in two hours so that with two craft, departures could be scheduled at two hour intervals for each terminus. If North Sydney were used as the Nova Scotia terminus, the distance would be increased to 90 miles and the crossing time to just under two hours.

It would appear desirable, and it is hoped feasible, to provide Hovercraft service across the Gulf during the peak summer months, say from May to September. The service would initially be provided by CN Marine Corporation and the rates charged would be somewhat higher than those for a conventional ferry crossing. It is possible that in the future a private company might start a competing service between other terminal points.

It is likely that the Hovercraft could be used in warmer waters, say in the Caribbean, during the winter months. Certainly the chances of finding suitable winter routes for the Hovercraft would be greater than for the Gulf ferries.

Terminal facilities for Hovercraft are not elaborate and can be provided at relatively low cost in comparison to those required for conventional ferries.

Conventional Gulf ferries will, of course, also continue to operate during the summer months. Tractor trailers and those passengers who wished to do so would still make the crossing by these ferries.

Winter service would continue to be provided by these ferries, supplemented by at least one of the ferries from the Argentia service.

In addition to providing a service which would be much more rapid and efficient for Newfoundlanders who wish to cross the Gulf, the Hovercraft would

make possible an entirely new development in the tourist travel to and within Newfoundland. At present, it is not possible for tourists who travel in the Atlantic Provinces area to “drop in” on Newfoundland. The trip to Newfoundland now takes approximately one day, and the return trip takes another day. With the considerably reduced crossing time provided by the Hovercraft service, i.e., a total of just under two hours, the tourist may decide to cross to Newfoundland in the morning, spend most of the day travelling from Port aux Basques to Corner Brook or Big Falls, return to Port aux Basques in the evening and cross on the Hovercraft before night. Once there, the trip might be extended to visit other places in Newfoundland. This breakthrough in tourist travel to Newfoundland would, it seems likely, provide for and make possible a substantial increase in the number of visitors coming to Newfoundland during the summer. It may well be that the number would increase by 200 or 300 per cent, and this, of course, would permit a concomitant increase in the tourist industry in Newfoundland, with all of the attendant advantages and disadvantages which accompany such a development.

The Hovercraft would also be of value in Northern Newfoundland and Labrador as well. At present the ferry service across the Strait of Belle Isle is provided by the ‘*Northern Cruiser*’ between the months of May and mid-November. Between mid-November and May, no ferry across the Strait is provided because of the weather and ice conditions. It has been demonstrated, however, that Hovercraft are capable of operating in winter conditions on the Quebec North Shore from Sept Iles to Blanc Sablon. The Air Cushion Division of the Ministry of Transport has also successfully experimented with Hovercraft as ice breakers. There is no doubt that ice conditions in the Strait would prevent the craft from crossing on certain days of the year, but it is estimated that the craft could provide a service on a large percentage of the days during the winter season.

It is possible that the Hovercraft, which is used for the Strait crossing during the winter months, could also be used effectively in Northern Labrador during the summer. At present that service is provided by a weekly round trip of the ‘*Bonavista*’. A Hovercraft could cover the same distance in approximately two days. That is, on day one the craft could leave Goose Bay and visit each of the Communities in Northern Labrador, i.e., Rigolet, Makkovik, Postville, Hopedale, Davis Inlet and Nain. On day two the craft could make the return journey. This would permit a much more rapid and effective service for the residents of Northern Labrador than is possible at the present time.

Although the concept of the Hovercraft seems feasible and exciting at the present time, the Commission recognizes that many unanswered questions and

problem areas remain to be resolved. The suitability of the craft for operation in the waters of the Gulf has not been demonstrated. The ice conditions of the Strait of Belle Isle during each of the months of the winter season has not yet been thoroughly investigated. The whole question of the relative fuel consump-

tion of Hovercraft versus conventional ferries must be researched fully. Nevertheless the Commission judges that the possibility of the use of Hovercraft in Newfoundland waters is sufficiently attractive and likely that full-scale feasibility studies should be undertaken in the immediate future.

Chapter XIII

Transportation in Labrador

Transportation in Labrador is singled out for consideration in this section, not so much because the issues are controversial, as because they have heretofore been neglected or even ignored. In reviewing the progress made in provincial transportation systems during the last decade, certain inequities become immediately apparent. The dramatic changes, especially in respect to road building, that have occurred on the Island are in stark contrast with the lack of change in Labrador. We must, nevertheless, note two important exceptions to the general rule:

1. *The introduction of the 'William Carson' to the Labrador service.* The weekly run (including stops at St. John's, Lewisporte, St. Anthony, Cartwright and Goose Bay), introduced in 1976, was widely acclaimed and appreciated in Labrador. This service provided the first opportunity for some of the people of Labrador to travel with their vehicles to and from the Island. The tragic mishap which caused the sinking of the ship early in 1977 was a severe blow to coastal Labrador, and while the replacement service, which provided twice weekly runs between Lewisporte and Goose Bay, softened the blow somewhat, it did not provide as satisfactory a service as that previously provided. There is no doubt that a new vessel must be specially designed to provide, in the immediate future, a similar service to that provided by the 'Carson'.

2. *The replacement of the old, small and unbelievably uncomfortable ferry which crossed the Strait between St. Barbe and Blanc Sablon with the new, larger, infinitely more comfortable 'Northern Cruiser' at the beginning of the 1977 season.* The new vessel provided for the transporting of passen-

ger cars, trucks and tractor trailers across the Strait. Although the terminal facilities, especially in Blanc Sablon, need improvement, the new vessel has considerably improved the transportation system serving the communities of Southern Labrador.

Apart from these two important developments, the overall situation concerning transportation in Labrador is as dismal as it was ten years ago. A road map prepared in 1976 looks almost exactly like its counterpart produced in 1966, except that a portion of the road between Goose Bay and North West River has been completed and paved. The road between L'Anse-au-Clair and Red Bay can hardly be described as a road at all. It is rough, precipitous and characterized throughout its entire length by incredibly steep hills and dangerous curves. In places it is virtually impassable in summer and completely impassable during the winter. There is still no road connection between Labrador City — Wabush and the remainder of the Province. The feeling of loneliness and isolation that is described so vividly and accurately by M. O. Morgan in his report on industrial unrest in Labrador City is no less true today than it was then. The coastal service has, if anything, deteriorated during the last ten years. Air service has changed very little. EPA provides essentially the same service with more modern aircraft and charges relatively the same rates. The service provided by Labrador Airways is, of necessity, irregular and inadequate due to the lack of suitable landing strips.

The Coastal Service is seen by the people in Labrador as being so unsatisfactory that much of the freight transported to coastal communities between L'Anse-au-Clair and Red Bay is imported, whenever possible,

via the Quebec Maritime Agency shipping service from Montreal to Blanc Sablon. This service is described as being much better than the service provided from Newfoundland, and even though the rates are considerably higher, the people are prepared to pay them in consideration of the better service provided. The economic implications of this are obvious.

Worst of all, perhaps, are the feelings of anger and frustration among the people which are engendered by perceptions of governmental indifference. They have seen study after study carried out without any visible improvements resulting. The universal demand is for action rather than for further studies. And that demand is justified. Numerous studies have been completed which were to have aided in the solution of the problems in Labrador transportation. The appropriate conclusions and recommendations of these studies must be put into effect immediately. In particular, three important steps are of utmost urgency:

1. *The road between L'Anse-au-Clair and Red Bay must be improved and paved in the immediate future.* This is clearly a provincial responsibility, but perhaps funds could be sought from DREE for the completion of this project.

2. *The movement of freight and passengers along coastal Labrador must be improved and rationalized.* This will entail the construction of airstrips in all major communities of Labrador and the introduction of service by twin Otter or other equally suitable aircraft. Fast motor launches and smaller planes must be used to provide connecting links to the smaller communities which will not be served directly by the airstrips. An intermodal approach is therefore necessary for the movement of passengers along coastal Labrador. The movement of freight will continue to be by coastal vessel, but the service must also be improved considerably.

This means, in essence, that the Labrador Area Master Plan for airstrips in selected communities in the Labrador coast should be implemented without delay. The Commission is pleased to note that work on four airstrips has commenced. The proposed schedule for starting and completing work on each airstrip must be firmly adhered to. In the southern Labrador communities, the problem of connections between those communities which have airstrips and those which do not must be given high priority. It appears that connections provided by high speed

motor launches could provide the most satisfactory service, at least during an interim period.

3. *A Trans Labrador Highway must be constructed to link Labrador City — Wabush and Churchill Falls with Goose Bay and coastal Labrador.* A preliminary study of such a highway has been carried out by R. J. Noah and Associates. This study examines a projected route from Forteau along the coast to Goose Bay and thence to Churchill Falls and Labrador City — Wabush with branches linking Mary's Harbour and Cartwright to the trunk road. The study concludes that the construction of the road is both practical and economically feasible although the project will be an expensive one, costing approximately three hundred and fifty million dollars. Even though expensive, it is a project which must be planned and completed for important economic, social and political reasons. It will provide year round transportation to the southern part of coastal Labrador, assist in the process of exploration and development of commercially important resources, and have the enormously important social and psychological effect of eliminating the feeling of isolation which characterizes life in Labrador, especially in the western portion.

Road connection between Labrador and the remainder of Canada will, in the near future, be provided through Quebec. The political implications of having Labrador connected by road to Quebec and not to the island portion of Newfoundland are extremely significant and must not be overlooked.

Three other projects are of considerable importance to Labrador. Although we cannot recommend that they be commenced at this time, they should certainly be examined carefully and feasibility studies should be carried out in the immediate future. They are as follows:

1. *The provision of a year round deep water port ("Port Labrador") for Labrador.* It should be connected by road to the Trans Labrador Highway.

2. *A rail link between "Port Labrador" and central Canada should be investigated.* It might be possible to run the railway on the electricity generated by the Lower Churchill.

3. *A tunnel across the Strait of Belle Isle which would be suitable for vehicular traffic as well as the transmission of electricity.* This feasibility study should be commenced immediately and carried out by an independent consulting firm.

Chapter XIV

Dealing with the Social Consequences of Change

The transportation industry, perhaps more than any other, is vulnerable to change and to the inevitable difficulties and dislocations resulting therefrom. Sometimes change involves growth and resettlement, as when the building of a railroad results in the creation of new towns, or causes the dramatic expansion of small settlements in its path. Examples of such changes may readily be seen in the growth and creation of towns in the Canadian west resulting from the building of the Canadian Pacific Railway in the late 1800's. Examples may also be found in Newfoundland in the creation or expansion of Bishops Falls, Clarenville, Lewisporte and Port aux Basques. Sometimes such towns remain completely associated with and dependent upon the transportation industry, as is the case with Bishops Falls and Port aux Basques, where even today, an extremely high proportion of the employment is dependent directly or indirectly upon the transportation industry.

A change in the mode of transportation may involve the creation of significant numbers of additional jobs within a single town and its immediate area. When this happens, as in the examples cited above, the results are obvious and dramatic, but sometimes the results of change are more difficult to discern. For example, the growth in the trucking industry in Newfoundland during the past ten years has created approximately 1500 new jobs. Had these been concentrated in one small town, the result would have been dramatic. In fact, they have been created in a large number of towns and settlements including St. John's, Corner Brook, Grand Falls and Gander, and since they have been spread out geographically, their impact has been largely unnoticed and no significant

growth patterns or relocations have been derived from them.

Frequently, rapid growth arising from the development of a transportation system is followed eventually by an equally rapid decline and even dissolution. Thus, technological innovations or improvements may lead to the virtual death of a town which has been completely dependent upon transportation. Many examples of this phenomenon exist along the routes of Canada's major railways. Coming closer to home, less severe, but nonetheless serious, repercussions stemmed from recent technological changes in freight handling that reduced drastically the level of employment in Port aux Basques. The specific case of Port aux Basques will be discussed later in this chapter.

Nevertheless, there are instances in which even greater reductions in employment have no such drastic effects because they are spread out geographically and not concentrated in any one town. For example, the amalgamation of two or more major companies will frequently reduce the number of jobs previously available. The jobs eliminated may not be concentrated in one town or area but will spread out over the various provinces of Canada. Thus, though the change will certainly be disturbing to those individuals directly affected (although the trauma may be eased considerably by special provisions for recovery, early retirement and retraining), the total impact, spread across the country, will probably create nothing more than minor perturbances.

Any change in transportation is liable to result in important and pervasive social consequences. Increases in employment opportunities, for example, will bring an influx of people and money into a town,

which will produce serious and sometimes radical disruptions in patterns of friendship, entertainment and moral behaviour. Social problems, such as an increase in alcoholism and delinquency, will frequently accompany such changes. In most cases, the towns so affected are unprepared for such changes and unable to deal with the consequences in a positive manner. Indeed, the desire for increased employment opportunities is generally so strong that to achieve that end, almost any unfortunate side effects will be tolerated. Nevertheless, it may well be as important to plan for mechanisms to deal with the consequences of boom conditions as to prepare for the consequences of reductions in the work force.

However, the immediate effects of a reduction in employment are more obvious and help is clearly and obviously required in dealing with such circumstances. This is particularly so in Newfoundland, where the level of unemployment is approximately twice the Canadian average and where an individual who loses a job is, in consequence, less likely to find another than if he lived elsewhere in Canada. This argument is strengthened when we consider one-industry towns, such as Port aux Basques and Bishop's Falls, where, for all practical purposes, there are virtually no other jobs than those provided by the rail operations.

The effect of losing a job, especially when alternate employment cannot readily be found, can be devastating. The most obvious impact is financial. The individual's level of income is sharply reduced even when he receives Unemployment Insurance. If the period of unemployment is prolonged, it will become increasingly difficult to meet commitments such as mortgage payments on a home or payments on a car. Eventually, savings will be used up, the standard of living will be appreciably lowered and, not infrequently, there will be the final resort to social assistance.

In our society, work is the most important component of our daily activities. A person's concept of himself is influenced greatly by the work which he does and by the degree of success with which he completes his work and by the satisfaction which the job brings. Having a job also gives a sense of completion and responsibility and of being in control of life. It makes it possible to provide for the necessities and perhaps a few luxuries for members of the family. Therefore, the psychological consequences of unemployment, although not as obvious as the financial effects, are nonetheless equally as important. These have been extensively investigated by psychiatrists, psychologists and sociologists and documented both in the popular press and in professional research journals. Psychological effects include a change in the self-image, loss of self-esteem and increased feelings of dependency, of helplessness and of worthlessness. Psychosomatic illnesses, such as migraine headaches

and stomach disorders, increase markedly. Psychiatric illnesses, especially depression, become much more common. The incidence of suicide increases, sometimes dramatically.

It is obvious that attempts should be made to prepare for changes in employment patterns, especially those which involve the loss of jobs as a result of the introduction of technological innovation or administrative changes.

One example of a recent attempt to deal with the effects of such change may be found in the case of the amalgamation of Canadian National and Canadian Pacific passenger services into "Via Rail". In an attempt to ameliorate the consequences for individuals adversely affected by the amalgamation, the Government of Canada has enacted regulations under *The Appropriations Act Number 1*, dated October 24, 1977 (PC1977-2987), entitled "Regulations with respect to the implementation of adjustment assistance to Railway Companies and employees affected by changes in railway passenger services". One particular section is especially applicable to the present argument. Section 4—"Special Agreements" reads:

In negotiating a special agreement, the parties to the special agreement process, shall, in as much as the following are generally incorporated in their existing job security agreement, give consideration to the following:

- a) In so far as possible ensuring continuing employment for the employees concerned.*
- b) Where preferred and to the extent possible, keeping employees in gainful employment at the same location.*
- c) Where necessary, training employees for alternative employment.*
- d) When required, providing appropriate assistance in relocation.*
- e) In so far as possible, avoiding loss of employees' earnings.*
- f) Developing a separation plan for the assistance of employees close to or eligible for retirement who wish to leave the work force.*
- g) Minimizing seniority obstacles for the purpose of facilitating;*
 - 1. Continuing employment by Canadian National Railway Company or Canadian Pacific Railway Limited where mutually agreed to by parties, and*
 - 2. Transfer of employees to Via Rail Canada Incorporated.*
- h) Where employees are laid off providing reasonable weekly layoff benefits or severance payment, and*
- i) Assisting employees unable to maintain their jobs to secure employment outside the railway industry.*

It is recognized that such special agreements may require additional financial outlay and the Act provides in Clause 3 that:

The Minister of Transport may reimburse a railway company for the prescribed proportion of the cost incurred by the company for the provision of benefits where:

a) The cost results from changes implemented between March 29, 1977 and December 31, 1980.

b) A special agreement exists between the railway company and the trade unions.

c) An arrangement exists between the railway company and the Minister of Transport.

The principle of providing special assistance for those who are threatened with loss of employment is an extremely good one. The implementation of such agreements obviously requires and is facilitated by a spirit of trust and co-operation between unions and management.

Traditionally in Canada, labour and management have adopted adversary roles. Not uncommonly, employees feel that management is disposed to be secretive and, perhaps, dishonest and that their every action should be viewed with suspicion. Management, on the other hand, quite often views workers as being concerned only with their own benefits and not with the furtherance of company goals. These attitudes became evident to the Commission immediately after its establishment when labour and management disagreed concerning the force and implications of the federal Minister's understanding that employment in the CN operations would not be reduced because of technological or other innovations during the life of the Commission.

The latent mistrust and hostility between unions and management frequently comes to the forefront during periods of technological change. A case in point is the continuing dissension between the Canada Post Office and the inside workers Union concerning the implementation of technological changes in the sorting of mail.

However, the relationship between unions and management does not *have* to be one of mutual suspicion and mistrust. There are numerous examples of a trusting and co-operative relationship that has continued even during times of technological change. Where such examples exist, the necessary ingredients for the development of such a relationship appear to include the sharing of responsibility for decisions and, in particular, the involvement of workers in the making of important decisions that may affect their futures. The Commission offers here several examples of co-operation between workers and management. It does so, not because we wish to recommend that these particular procedures necessarily be followed, but only as illustrations that, under certain circumstances, a high level of co-operation between

labour and management may be attained. Many examples could be provided from the European scene, since joint labour management committees and joint consultation procedures have a long history there and are now well established. More pertinent to its purposes, however, are recent experiences in North America.

A particularly relevant and recent example of labour management co-operation is provided in the Final Report of the St. Louis Terminal Project, April 1977 (Missouri). The Project was carried out over a five year period and was intended to introduce and evaluate changes in methods of freight handling in the St. Louis Terminal. The Director of the Project was from Management and the Associate Director was from one of the Unions directly involved. The research was directed and evaluated by independent consultants. Guarantees were given that no worker would lose wages because of any experimental evaluations which were introduced. The Project was funded through co-operation by Government, the Company and the Unions. These funds were used to pay for any special meeting expenses incurred by the research project and to supplement the wages of workers who would otherwise have lost money during the course of the Project.

Although for reasons unrelated to the Project, the Unions involved are no longer active in this area, the final Report of the Project summarizes the accomplishments of the Project as follows:

- *It further demonstrated that labour and management can work together successfully and effectively to achieve greater productivity and better serve the shippers.*
- *Firm evidence that an experimental program involving local management and employees could produce a measurable and significant improvement in railroad performance—the average time a car spends in the St. Louis Terminal was reduced over four hours (25%) between January 1975 and December 1976.*
- *Three of the experiments that involved the temporary waiver of labour agreements served as the basis for the negotiation of permanent changes between local labour and management.*
- *The development of a Car Movement Performance Measurement System for the St. Louis Terminal that is adaptable to other terminals.*
- *Communication between local labour and management was improved by a series of regular meetings between the employees and operating officers.*
- *The Task Force on Rail Transportation believes that similar labour/management experimental programs at other terminals and on other railroads are in the best interest of all concerned.*

The idea of labour management co-operation and of the joint consultative process is also becoming relatively common in Canada. In a recent article in *Transport Canada*, December 1977, Ray Flansberry, Employee Relations Officer of the Department of Transport, provides the following brief article entitled, "Let's Talk It Over".

A good many labour disputes are caused by a simple inability to solve on-the-job problems as they occur.

Even the smallest of these problems have a tendency to build up if they are not dealt with, and when the time comes to renegotiate the next contract a backlog of discontent and bitterness may develop which will seriously hinder negotiations.

However, this situation is less likely to occur in Transport Canada now that consultative committees have been set up involving the department and the Union of Canadian Transport Employees (UCTE).

These consultative committees, which are being established on local, regional and national levels, will provide a free exchange of information between management and the union on matters which concern both parties. Furthermore, they will make it possible for each party to better understand the other's position.

Consultation is based on the philosophy that many problems may be settled during the life of collective agreements if the unions and management have an opportunity to discuss them as they arise. And, both Transport Canada and UCTE believe consultation committees will provide a forum for prompt and less constrained, yet official communication.

EVOLUTION

The idea of local consultation was first reviewed in 1973, but, lacking a proper set of guidelines, never developed.

As a result, consultation procedures were reviewed at a special meeting in December 1975, involving UCTE's executive, Deputy Minister Sylvain Cloutier and senior officials of the department. A committee was established which subsequently drafted new guidelines.

Under the new guidelines the committees may discuss any matter that will not alter the intent and purpose of a collective agreement. Debate may include such topics as training programmes, working conditions and government policies. Formal grievances are handled by usual grievance procedures.

Issues are to be dealt with at the level where they occur, be that national, regional or local. If a local committee cannot solve an issue it may be sent

up the line to the regional level. Similarly, regional issues may go to the national level. Problems are solved by a consensus of both parties rather than a vote.

IMPLEMENTATION

In order to ensure the new guidelines are effective, a joint implementation team has introduced the consultation programme to the regions. The team was composed of Larry LeBlanc, assistant executive secretary, UCTE; Ray Flansberry, employee relations officer, Transport Canada; Charles Cameron, chief, staff relations, CATA; and Al Bennett, staff relations officer, Canadian Coast Guard. The team visited regions in the Air Administration and the Coast Guard on a 10-stop tour, speaking to regional managers and union officials.

A pattern was developed on the tour involving two-day visits to each region. Management and union officials met with their regional counterparts and then joined together for a session to ensure common understanding. During this joint session a 45-minute film of a national consultation meeting was shown to further illustrate the process.

Regional officials and managers then toured their own regions, informing employees and managers of the new consultation process.

Still to be set up is a national consultation committee which will handle the more complicated and sensitive problems passed on by local and regional committees.

Only time will tell, of course, but for now it would appear that consultation committees are a key to more peaceful and constructive labour relations.

A particular example, immediately relevant to our deliberations, may be found within the Gulf service of CN Marine where, for some years, management and labour have worked with the joint labour management consultative committee process. An East Coast Marine Co-ordinating Committee, consisting of representatives of all levels of management and all of the unions involved, was established to deal with problems associated with the introduction of changed procedures. While the Committee has not had to deal with any major problems to date, it has met several times each year (various sub-committees have met more frequently) and it has engaged in the frank exchange of information and appears to have contributed significantly to the development of co-operative and harmonious working relations during the past several years.

Another example of the general principle of labour management co-operation which can be cited is that of the Joint Manpower Adjustment Committees sponsored by the Manpower Consultative Service, a divi-

sion of the Department of Manpower and Immigration. These committees have been particularly helpful in creating a climate of co-operation during periods of technological change, including periods of increasing and also of decreasing employment. The Canada Manpower Consultative Service describes its activities as follows:

The Canada Manpower Consultative Service (CMCS) helps employers and their employees adapt to technological and other change.

A service of the Department of Manpower and Immigration, CMCS is responsible for administering the Canada Manpower Adjustment Program. It acts as a catalyst to bring employers and workers together to discuss changes in the work place and formulate adjustment measures to solve the problem that change can bring.

CMCS offers technical advice, guidance and financial incentives to employers and workers suffering the effects of a change in technology or economic conditions—an industrial slowdown, plant relocation, or other factors that may lead to the dislocation of workers or the closure of plants or industries. CMCS is not restricted to cases where problems have already occurred; it encourages preventive action wherever major changes can be foreseen.

These services are offered under the Canada Manpower Adjustment Program through which hundreds of incentive agreements have helped more than half a million Canadian workers since 1965.

CMCS seeks to develop constructive solutions to manpower adjustment problems by encouraging management and labour groups to work together in Joint Manpower Adjustment Committees. When the two groups get together to find answers to their problems, much of the fear that uncertainty brings can be eliminated. The program is based on three general principles:

1) Research and planning well in advance of coming change to study the implications and recommend suitable adjustment measures.

2) A joint approach by labour and management permitting workers to take part in developing plans that will affect them.

3) Co-operation of private and public adjustment measures, including the full range of government manpower programs.

A Manpower Assessment Incentive Agreement with the Minister of Manpower and Immigration, signed by representatives of labour and management, establishes a Joint Manpower Adjustment Committee and provides financial assistance of up to 50 per cent of the costs of research, planning and consultation undertaken by the two parties.

The committee explores every possible avenue to give maximum assistance to displaced workers and may use programs from any public or private agency. These include the full range of services offered by the nation-wide network of Canada Manpower Centres: career counselling, job referral, job training and retraining, and mobility assistance for job exploration or relocation. The Committee may also enlist the services of expert technical advisers.

If transfer of workers from one company plant to another is one of the adjustment measures adopted by the Committee, incentives are available for up to 50 per cent of the mobility costs.

The Committee also takes an active part in the implementation of adjustment measures it has adopted.

Within the general framework, Joint Manpower Adjustment Committees have, within the past ten years, been involved with the alleviation of problems arising from the shutdown of the Newfoundland Steel Company, the phasing out of the whaling industry and the reduction in employment which accompanied the failure of several sawmills in the Roddickton area. On a more positive note, in dealing with maintaining and increasing job opportunities, a joint consultative committee was instrumental in fostering labour and management co-operation so that the *St. John's Daily News* could progress rapidly toward becoming a commercially viable and successful newspaper.

An appropriate example in the area of transportation may be drawn from the situation at Port aux Basques, where, during the years between 1967 and 1976, several successive joint consultative committees were established to foster co-operative action between CN Marine and the Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employees (BRASC).

Fifty per cent of the funds necessary for the operations of the Committee were provided by the Manpower Consultative Service, forty per cent by CN and ten per cent by the Union.

The Committee consisted of six union representatives and six management representatives (each representative having an alternate) and an independent chairman. The independent chairman presided over all meetings of the Committee and, in addition, supervised its research activities.

The first Joint Consultative Committee was established when it appeared that a technological change, truck to truck transfer, would threaten the employment opportunities of a large number of dock workers in Port aux Basques. Truck to truck transfer is a relatively simple operation involving the placement of standard gauge cars on narrow gauge wheels, thus obviating the necessity for the manual transfer of freight from the mainland box cars to the narrow

gauge cars used on the Newfoundland railway. The truck to truck transfer is accomplished in minutes by very few employees, whereas the manual transfer of freight from one car to another requires the efforts of a considerable number of employees over a period of several hours. Truck to truck transfer thus reduces employment at the rate of approximately fifty man hours per car.

Fortunately for the Committee, the expected reduction in employment associated with the introduction of car body transfer was, to a considerable extent, offset by an increase in traffic. Thus, for a period of two or three years after the change in technology, Port aux Basques did not experience a severe reduction in employment. In consequence, the Committee had sufficient time to become well established and to learn how to deal with the problems which were to occur at a later time. In this period, the Committee carried out research studies which demonstrated quite clearly and to the satisfaction of both union and management representatives on the Committee that:

a) The acceptance of technological change leads to a generally beneficial result for both union and management, whereas, the rejection or reluctance to accept technological change almost inevitably leads to a deteriorating situation for both labour and management.

b) Newfoundland business concerns have a definite preference for truck to truck transfer. Businessmen themselves made it very clear to members of a union/management research team that freight would continue to come through Port aux Basques *via rail only* if truck transfer were readily available.

Partly as a result of the information gained from these research activities, workers at Port aux Basques were able to make an excellent adjustment to new working conditions. The work force in Port aux Basques was reduced from well over seven hundred to less than five hundred over several years as the truck to truck transfer system was expanded by the addition of a second and a third shift and all of this occurred in a spirit of co-operation and without any disruption of activities by union members.

The experience with the Joint Consultative Committee at Port aux Basques suggests that the most successful operation of such a Committee depends upon:

a) The establishment of the Committee during a period of relative stability and not during a period of emergency or crisis.

b) The gathering of information by both labour and management committees and the sharing of information in such a frank manner as to generate mutual respect, confidence and trust.

c) The analysis of the problem in such a manner as will illustrate that the goals of management and

labour are shared and that the means employed by both parties to achieve those shared goals are compatible.

Existing problems within the field of transportation in Newfoundland appear to be appropriate to the use of the Joint Manpower Adjustment Committee approach. This is particularly true for those areas of transportation which fall within the domain of the system in Newfoundland in which there will undoubtedly be, over the next ten years, considerable changes in the level and patterns of employment. Some such changes may, indeed, be expected in the near future, for CN management agreed that the level of employment would not be reduced, except by reduction in traffic volume, during the life of the Commission. Now that the report of the Commission has been made public, it is reasonable to expect that CN will proceed with the changes that have been held in abeyance.

If the recommendations of the Commission are accepted, this initial readjustment will be followed by a five year period, during which no further reduction in employment associated with technical and administrative changes may be expected. This period of relative stability in the level and patterns of employment should permit planning to proceed in anticipation of any changes which might occur after that five year period.

It seems to be desirable, therefore, that a Joint Manpower Adjustment Committee be set up within the CN organization in Newfoundland in the immediate future. This Committee should include equal representation from the CN system, i.e., CN Rail, CN Marine Corporation (Gulf) and CN Marine Corporation (Coastal), and from the unions which are associated with the CN operation in Newfoundland. These are:

Brotherhood of Railway, Airline and Steamship Clerks, Freight Handlers, Express and Station Employee—BRASC No. 163 and BRASC—TCE Union.

Brotherhood of Railroad Signalmen.

Canadian Brotherhood of Railway, Transport and General Workers.

Brotherhood of Maintenance of Way Employees.

Canadian Merchant Service Guild.

Railway Employees' Department, Division No. 4, A.F. of L.—C.I.O., (representing:

Brotherhood Railway Carmen of the United States and Canada;

International Association of Machinists and Aerospace Workers;

International Brotherhood of Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers;

International Brotherhood of Electrical Workers;

International Moulders' and Allied Workers' Union;

United Association of Journeymen and Apprentices of the Plumbing and Pipefitting Industry of the United States and Canada;
Sheet Metal Workers' International Association;
International Brotherhood of Firemen and Oilers,
Power Plant Operators, Helpers, Roundhouse
and Railway Shop Employees).

United Transportation Union (T).

United Transportation Union (E).

The Committee should be funded at the level of at least \$200,000 per year, 50 per cent of this amount to come from the Federal Government through the Manpower Consultative Services, 45 per cent from CN and 5 per cent from the Unions. This amount would be sufficient to pay for the routine expenses of regular committee meetings and the research activities directly sponsored by the Committee. The Committee should also have access to additional funds of at least \$250,000 per year to be provided by the Federal Government and to be available, on the recommendation of the Committee, for specific retraining programs, relocation expenses and specific employment projects sponsored by the Committee.

These amounts may seem at first sight to be unnecessarily large and generous. However, amounts which are astronomical by comparison are lost by frequent or prolonged work stoppages. If such disruptions can be reduced or eliminated by the setting up and functioning of Joint Consultative Committees, the money will have been invested wisely. Furthermore, the monetary effects associated with loss of employment are complicated. When jobs are eliminated in one area it may well mean savings in that area but increased expenditures in other areas of government spending. That is, payments from the Unemployment Insurance fund and welfare payments may be expected to increase. Considerable sums of money are spent in make-work projects in areas of high unemployment. Money which is spent in attempting to maintain levels of meaningful employment and to prevent the elimination of jobs is much better spent than is money which is spent to deal with the detrimental effects which follow the loss of jobs.

The first task of the Committee would be to work out a reasonable procedure, acceptable to both Union and Management representatives, for the introduction of any technological or administrative changes which had been delayed while the Commission carried out its task. Special consideration should be given to any resulting changes in employment. If workers are to be laid off, the Committee should work out the pattern which will produce the least disruption and the smoothest transition. Because of the complicated process of bumping within unions, certain individuals might have to be kept on for a longer period of time than would ordinarily be required and, in such cases, the workers involved should become

the direct responsibility of the Committee and be paid from the fund referred to above for carrying out tasks such as those elaborated in the sections which follow. Since those eventually laid off would likely be low in seniority and therefore young, the Committee should endeavour to find alternate permanent employment for them through a process of intensive research into job possibilities in Newfoundland. The Committee should also be able to arrange for retraining and relocation of those involved in initial layoffs.

As mentioned above, it is assumed that this initial readjustment will be followed by a five year period during which level of service provided by CN Rail and by the rail operation on the Gulf would not be reduced. The Commission has recommended that during this period no technological or administrative changes that would have an adverse effect on employment be introduced; however, the Commission does not recommend that within this period the level of employment within the CN organization in Newfoundland should be frozen. Rather, it recommends that the level of employment should be associated directly with the amount of traffic carried. Therefore, the second task of the Joint Manpower Adjustment Committee should be the working out of a formula to relate levels of employment directed to levels of traffic. This formula should be acceptable to both Union and Management and its preparation and administration should be the responsibility of the Committee.

Since, within the five year period, employment would be directly related to the amount of traffic carried, and since the final decision concerning the railway would be affected by the amount and type of traffic carried during that period, it would obviously be desirable for traffic to be maintained at the optimal level and that all appropriate commodities be attracted to the rail during the next five years. This means that efforts should be made to ensure that the most desirable type of customers (i.e., those associated with long-haul traffic) remain as customers of the railway. It would also be desirable if appropriate traffic, i.e., long-haul incoming, and especially back-haul traffic, could be attracted to the rail mode. There is no doubt that traffic will depend upon customer satisfaction, efficient movement and aggressive salesmanship. Management is interested in attaining the most appropriate level of traffic through effective and efficient freight handling techniques. Union members should also be interested in this goal and would gain much if this goal were achieved. Union and Management thus share a common goal and should work together in an attempt to achieve it. Intensive efforts, undoubtedly involving an examination of freight handling procedures in other locations, and the introduction and evaluation of novel procedures in pilot projects (as was done in the St. Louis Terminal Study) should be directed toward discovering and planning

for the eventual introduction of the most effective and efficient procedures in freight handling. Some individuals, who would under ordinary circumstances be declared redundant, would be kept on as a result of the agreement to reduce employment only as a consequence of traffic reduction during the interim period.

It should be noted as of more than passing interest that the *actual* problem of dealing with employment reductions within the CN organization in Newfoundland may not be as difficult as would appear at first glance. The railway has not, during the past ten years, hired many permanent employees so that those who are now with the railway are of middle age, within the forty to fifty year range. During the next ten years many of these individuals will approach or reach normal retirement age, or an age at which they may be willing to take early voluntary retirement. The process of attrition will obviate much of the disruption that might, at first glance, be anticipated.

Nevertheless, despite the best efforts of the Committee, some workers will face layoff during and at the end of the five year period. Therefore, the problem will not disappear entirely. The Joint Manpower Adjustment Committee should begin at once to address the problem, to identify those individuals who would be affected by the changes that are likely to occur and to collect pertinent data related to such matters as their ages, level of education, special skills and mobility.

In terms of operating procedure, the Commission recommends that the Committee should be divided into three sub-committees, each responsible for one aspect of employment within CN. Thus, one sub-committee would concentrate upon the rail operation, one upon the marine/rail interface at Port aux Basques and the third upon the interfaces at Lewisporte, Corner Brook, Argentia and St. John's. Each sub-committee should be equally representative of the appropriate management and union personnel and the independent chairman of the Joint Manpower and Adjustment Committee should preside over all three.

The Committee and its sub-committees would be concerned with the maintenance of an optimal level of traffic on the rails, but at the same time a major purpose of the activities of each sub-committee would be the anticipated reductions in employment accompanying any modification of the railway system. The sub-committees, in recommending particular procedures to minimize the detrimental effects of layoffs, would undoubtedly consider:

- a) retraining for those individuals who would be affected and would like to take advantage of a retraining or upgrading programme;
- b) special assistance to relocate those employees who would be willing to move from one area to another;

c) early retirement for those individuals who could take advantage of such a procedure.

There is little doubt that the creation of such a Joint Manpower Adjustment Committee and the provision of appropriate funds for its proper operation would help, to a large extent, to alleviate the detrimental effects of the expected changes within the CN system in Newfoundland.

The Joint Manpower Adjustment Committee should, of course, also look at the possibilities for increased employment in activities relating to transportation. Possible changes in the transportation system, e.g., the introduction of Hovercraft, would create a substantial number of jobs. Some of these would be technical and would require an extensive period of training.

In areas other than those associated directly with transportation, it should be noted that the fishing industry in the Port aux Basques area is certainly flourishing and could be expected to expand considerably in the future, with a resulting increase in employment opportunities. Of more importance and relevance, however, is the likelihood that many jobs associated at a secondary level with transportation will be created in the Port aux Basques area. Port aux Basques will continue to be the major port through which passengers and tractor trailers arrive and leave Newfoundland. Overnight accommodation will not be readily available on the ferries. The potential for the development or expansion of hotels and restaurants in the Port aux Basques area would seem to be enormous. It is doubtful if the jobs associated with such ventures would be suitable for those presently employed by CN, but they would certainly be suitable for the next generation, i.e., those who would have been employed by CN if the full rail operation had continued. For this reason, therefore, the creation of jobs in new ventures in Port aux Basques should be given consideration by the Committee. The Committee may also be able to provide assistance for planning and financing such ventures.

Furthermore, the Committee might well serve as a model for the development of other committees and procedures and techniques which could be applied across the whole spectrum of transportation services in this Province. Nor would such committees be concerned only with reductions in employment. They could be equally relevant if it appeared that there would be a major increase in employment in any area as a result of the imminent expansion of any one mode of transportation. For example, it is anticipated that during the next ten years there will be a considerable increase in employment associated with the direct water mode. A Joint Manpower Adjustment Committee could be set up to deal with problems associated with the increase. This Committee would include representatives from the companies which

operate vessels and the various unions involved in direct water movement. Its first task would be to predict the number of positions which would be created and the amount and type of training required for each. The Committee would then ensure that Newfoundland workers were available and appropriately trained to fill the positions as they were created. Such preparation might require the creation, in co-operation with the Department of Manpower, of the appropriate training programmes. The activities of the Committee could also include an investigation of any social difficulties which might be expected to occur as a result of increased employment and affluence in any

area and the development of procedures designed to counteract any undesirable social effects. The results of such a committee might be especially informative since, to the best of our knowledge, Canadian union-management committees have not, to the present time, attempted to help solve this particular problem. Thus the transportation system in Newfoundland, with all of its disadvantages and problems, might well develop procedures which would prove useful in dealing with problems and opportunities associated with transportation in other areas of Canada, and with other areas of employment.

Section 5

Conclusions and Recommendations

Chapter XV

General Recommendations

General

The preceding sections of this report have analyzed the Newfoundland transportation system in its historical development, the present state of that system, goals for the future and what can be foreseen as future requirements and policies to guide change to achieve those goals.

The last section has examined certain key issues relating to Newfoundland transportation at present and in the future, and has reached some conclusions far reaching in their consequences.

The purpose of this and the next chapter is to set out the recommendations of the Commission following from all that has gone before. In this chapter will be set out those recommendations which flow from Chapters IX through XIV. The reader will recognize that in these areas, substantial elucidation of the problems and the reasoning used to arrive at the conclusions reached by the Commission is contained in the preceding chapters. Therefore, the recommendations in this chapter will be summary in form.

The Concept of User Pay for Newfoundland

1. That governments accept as a principle that the concept of user pay is not at present appropriate to many aspects of the Newfoundland transportation system, and that all policies and procedures take this fact into account.
2. That it be recognized as a principle that in those areas where competition can viably exist, the transportation system be developed toward a future situation where the concept of user pay may be appropriate and applicable.

The Question of Subsidies

3. That subsidies should be removed in planned stages on certain products and raw materials originating outside Newfoundland, when it can be determined that such products and materials can be economically manufactured or produced in this Province. At the same time, subsidies should be increased on raw materials imported from the maritime region into Newfoundland, which will be used in Newfoundland for the manufacturing of finished products.

4. That since Labrador has now reached the state where its economic and social activity must be incorporated into the fabric of provincial life, it should be immediately included in the select territory definition for The Maritime Freight Rates Act, The Atlantic Region Freight Assistance Act, and any new legislation providing for special subsidies or assistance for the Atlantic region. Similarly, Labrador should be treated as the other areas within the select territory if and when subsidies are extended to the marine and air modes.

5. That the policy laid out in Section III (II) (J) of the draft Bill C-33 be implemented. That is, where competitive transportation services are in existence or can exist, but where it is also deemed to be necessary to provide public assistance to support a specific policy of government, then such assistance should be made available in a manner such as not to distort the natural selection by the user of the most appropriate mode of transportation.

6. That when subsidies are being considered for implementation or being re-evaluated in operation, care should be exercised to ensure that transporta-

tion services are not used as a tool to assist in economic development, when other means may be more appropriate and effective in reaching this objective. In other words, policy makers must be certain that transportation, and indeed subsidized transportation, is essential for economic development before imposing requirements or making expenditures of public funds to bring about this end.

7. That if government should determine in the future to provide subsidies for surface transportation of passengers, such subsidies should apply on an equal basis to all surface modes and not just to the rail mode.

8. That once subsidies have been determined, every control should be exercised by regulatory and governmental agencies to ensure that the services in question are operated as efficiently and cost effectively as possible and that subsidies do not increase through inattention or lack of incentive. This applies particularly to the relatively large subsidies being expended on the Gulf and Coastal Services.

9. That where, following the recommendations of this Commission, or at any other time, it is determined to remove a subsidy, such removal should be undertaken on a planned, well announced, "phase out" basis so as to cause the least possible disruption to services and businesses which are dependent on the subsidy or the subsidized services.

10. That since Newfoundland receives little, if any, substantial benefit from the west bound subsidy provisions of The Maritime Freight Rates Act and The Atlantic Region Freight Assistance Act, immediate consideration be given to extending these subsidies to products shipped from Newfoundland to the export market. Thus, for example, fresh frozen fish products and wood products destined for United States and European markets should be subsidized on the portion of their transport within the select territory.

11. That while there may be some competitive reasons to suggest that financial information concerning subsidies should be kept confidential, the overriding interest of the public in ensuring that funds are properly allocated, and more importantly, in seeing the exact cost of the various subsidies and alternate modes, dictates that the details of any subsidy provided from government funds should be available publicly on a yearly statistical or other basis.

12. That since the ultimate aim of any transportation system is to develop mode selection and the ability of the consumer to choose the most beneficial mode and service, the imposition of subsidies should be carried out in such a manner as to encourage competition within modes and between modes, and as a general principle, equal subsidies should apply for equal services both as between

modes, and perhaps even more importantly, as between separate carriers within the same mode.

13. That since it is not clear that in the past direct and indirect subsidy programmes of government have achieved all or even a substantial portion of their intended results, existing subsidy levels should not be increased without careful scrutiny of the achievements of the subsidy and the competitive situation within the mode being subsidized. At the same time, the Commission realizes that when a decision is made to provide a certain amount of financial assistance, various carriers within the same mode may have different requirements. Therefore, variation in yearly subsidies should be permitted in certain cases so as to assist initial capital investment or other heavy capital expenditures. This principle of "front-end loading", when governed by suitable measures to take into account the extra benefit thus derived by the carrier from interest charge reductions achieved through advancing the subsidy, should allow more flexibility to develop services within the particular modes. This procedure should only be available to those companies which have first demonstrated their likely viability by several years of continued and successful operation.

14. That subsidy programmes should be designed to be promotional rather than continuing and, except where unusual circumstances arise, should be phased out once their promotional aims have been achieved.

Federal-Provincial Co-operation

15. That a Federal-Provincial Transportation Commission be established, known as the Newfoundland Transportation Commission, consisting of five individuals, two nominated by each government and a chairman agreed to between governments.

16. That the responsibilities of the Commission include:

a) Representation to appropriate agencies concerning standards to be set for transportation services in Newfoundland, and monitoring such services to ensure that standards are maintained.

b) Monitoring regulations for all modes of transport and recommending thereon.

c) Conducting Public Hearings concerning major proposed changes to Newfoundland transportation systems and arranging for consolidation and transmission of recommendations to appropriate decision-making agencies.

d) Establishment of a plan for co-ordination of transportation modes and services within Newfoundland, including arrangements for the establishment of services not now available.

e) Responsibility for continuing research, data gathering, and introduction of new procedures.

f) Analysis of the operations of carriers seeking subsidy assistance and decisions and advice to government concerning the selection of carriers and levels of subsidies, recommending the total amount of money which is to be spent in Newfoundland through Federal subsidies and taking into account the annual rate of inflation. Recommendations would then be made concerning the specific proportions and amounts which would be allocated to each facility and service. Money saved on one area, e.g., rail, could be reallocated and used in other areas related to transportation in Newfoundland.

17. That a Centre for Research on Newfoundland Transportation be established under the direction and control of the Newfoundland Transportation Commission.

Transportation in Labrador

18. That in addition to those specific recommendations concerning Labrador which appear in Chapter XVI, three feasibility studies be initiated in the immediate future. These are:

- a) The provision of a year round deep water port for Labrador, connected by road link to the Trans Labrador Highway.
- b) Construction of a Trans Labrador Railway, possibly electrically operated, to connect the Labrador port in the east with Quebec and Central Canada in the west.
- c) The construction of a submarine tunnel under the Strait of Belle Isle which would carry vehicular traffic and electricity transmission systems.

The Use of Hovercraft in Newfoundland

19. That a feasibility study be immediately undertaken in consultation with existing European Hovercraft operators and manufacturers concerning the possible application of existing Hovercraft technology to the Gulf Ferry Service from Nova Scotia to Newfoundland.

20. That a further feasibility study be undertaken in consultation with Federal marine experts to determine the possibility of the use of Hovercraft to service coastal communities in Labrador during ice

conditions, including use on the Strait of Belle Isle ferry crossing.

Dealing With the Social Consequences of Change

21. That a Joint Manpower Adjustment Committee be established within the CN organization in Newfoundland immediately, to include equal representation from the employer, i.e., CN Rail, Canadian National Marine Corporation (Gulf) and Canadian National Marine Corporation (Coastal), and from the unions associated with these operations.

22. That subcommittees of the Joint Manpower Adjustment Committee be established, dealing respectively with rail, the marine/rail interface at Port aux Basques, and the interfaces in other ports.

23. That the Committee be funded to an appropriate level with contributions by the Federal Government through Manpower Consultative Services, the employer and the unions involved.

24. That additional funding to an appropriate level be made available by the Federal Government to provide for specific retraining programmes, relocation expenses and employment projects sponsored by the Committee.

25. That technological and administrative changes delayed during the life of this Commission be implemented through such Joint Manpower Adjustment Committee.

26. That following initial employment adjustments, and until final confirmation of the decision to abandon the rail service, levels of employment within the CN operations in Newfoundland should be associated directly with the amount of traffic carried.

27. That the particular objective of the Committee would be the welfare of those individuals who would lose employment because of the changes recommended in this report. The committee would examine the prospects of alternate employment in the immediate geographic area and in other locations in the Province and the mainland of Canada. The Committee would then recommend appropriate training programmes or relocation assistance.

28. That further Joint Manpower Adjustment Committees be established as required to deal with anticipated increases or decreases in employment in other modes of transportation within Newfoundland.

Chapter XVI

Mode and Service Recommendations

The purpose of this chapter is to set out specific recommendations which have been raised, or which flow from the discussions and analysis contained in preceding chapters of this report, dealing with particular modes and services within the transportation system in Newfoundland. Chapter V will be of particular concern in this regard, as will those chapters subsequent to it which have general and specific comments related to modes and services.

Doubtless, the reader will, at this point, have noted certain areas in such chapters where the Commission has drawn conclusions and made specific findings of fact as to present and future transportation needs. To some degree, therefore, this chapter will be repetitive in that it will bring together points already specifically referred to before. Obviously, therefore, the elaboration required in this chapter will be less than that in the preceding chapters.

In order, it is hoped, to assist the reader further, once the general and specific analyses have been set out, together with the recommendations flowing from them, there will be included a simple summary of the recommendations, in numerical and concise form, at the conclusion of each section dealing with a mode or service.

In its terms of reference, the Commission has been requested, when making recommendations, to evaluate the effect of recommended changes in the transportation system in the short, medium and long run. Because of the interrelationship between the various services and the resulting interrelationship between many of the recommendations, it has been found undesirable to segregate the recommendations themselves into those which will come into effect within the short, medium or long range period. Rather, an effort

has been made, within each recommendation, to indicate whether the recommendation is one which should be implemented immediately, or if not, within what period it should be brought into effect. Thus, recommendations are not categorized by time of implementation, but rather by the mode or service to which they relate. The Commission considers that this method provides the best and most accurate means of reference for the reader.

The Rail System

The future of the railway in Newfoundland has been discussed in detail in Chapter VIII. It will therefore not be necessary to repeat the evidence and arguments which led the Commission to the following conclusion.

All of the available evidence indicates that, despite any efforts which may be made, the railway cannot continue as a viable service. Therefore, it should now be planned to have a transportation network which does not include a railway in approximately ten years' time. In order to prepare for an increase in traffic by other modes, therefore, work must begin immediately on an improved Trans Canada Highway and improved harbour facilities in St. John's and Corner Brook. The railway should continue without any reduction in level of service for a period of five years. During that time, experimentation intended to increase the viability of the rail service should be encouraged. At the end of five years the decision to abandon the rail should be reviewed. If unexpected improvements have occurred, the decision to abandon would be reversed. If nothing unexpected happened and present trends continued, the rail operation in Newfoundland should be phased out over a further period of five years. The Province of Newfoundland should agree with the phase-out of the

rail operation and should reach an agreement that in return the Federal Government will ensure that sufficient funds are provided to build and maintain for a five year period the Trans Canada Highway, which should be sufficiently improved to adequately handle the increase in traffic which would be diverted to road. Continued planning in a subsequent five year period should ensure that the road is upgraded to a satisfactory level well in advance of all projected increases and variations in traffic patterns. Funds for such subsequent and continued upgrading and maintenance might well come from savings resulting after the rail mode had been eliminated. Additional monies saved would be used to bring the remaining transportation systems in Newfoundland and Labrador to the highest possible standards.

1. *Summary of Recommendations*

29. That plans be commenced now to phase out the railway in Newfoundland in approximately ten years. This will involve the following arrangements.

a) *Specific for the railway*

(i) an initial period of adjustment in manpower levels following the release of the report of the Commission.

(ii) A period of five years during which the rail service will continue at, at least, the present level of service.

(iii) During that time the roadbed should be maintained at a level sufficient to meet the traffic offering.

(iv) No other major expenditures should be committed to the railway.

b) The Provincial Government and the Federal Government should begin immediately to negotiate the necessary constitutional changes and the procedures for the phase-out which would be satisfactory to both parties.

c) During the five year period, experimentation with new approaches to salesmanship and customer relations, new techniques for handling freight, and adjustments in freight rates should be encouraged and evaluated.

30. After five years the decision to abandon the railway should be re-evaluated. This might lead to either:

a) A decision to reverse the original decision and to continue with the railway for an indefinite period if the freight level or financial position of the railway had changed substantially and significantly in a positive direction.

b) The confirmation of the decision to phase out the railway if the level of traffic and the financial position of the rail had deteriorated or had remained basically unchanged.

31. If the decision to abandon the railway were confirmed, the phase-out of the rail operation

would be done in an orderly and systematic manner over the following five years.

32. During the ten year period in which the railway would continue in Newfoundland the deficit in the railway operation in Newfoundland should be paid directly by the Federal Government. The agreement to pay the deficit should be on basis that will not allow CN to have an unfair advantage over competition, i.e., enable CN to use this advantage to reduce rates overall to a level which will adversely affect the operations of its competitors.

33. Plans should be made in the immediate future to deal with increases in traffic through other modes, either by natural increases or by diversion from the railway. This would involve a complete rebuilding of the Trans Canada Highway so that its standard is adequate for the traffic that will be carried on it. It will also involve increase in direct water facilities, i.e., port facilities in Corner Brook and St. John's.

34. Joint Consultative Committees should be set up in the immediate future. These would involve co-operation from the unions involved and CN management. The purpose of these committees would be:

- a) to assist with the initial manpower adjustment;
- b) to assist with the initiation and evaluation of appropriate experimentation; and
- c) to plan for and to reduce the difficulties associated with any reduction in employment that would result after a five year period.

The Road System

The Commission recognizes that construction and maintenance of roads within the Province is primarily the responsibility of the Provincial Government. At the same time, the Commission feels it appropriate and essential to make specific recommendations concerning the Provincial road system, since it is obvious that highway transportation plays a very important part in the transportation system in existence and will continue to do so. As well, it is clear that the Federal Government has recognized that it has a vital role to play in road construction and upgrading, particularly within the poorer or economically depressed regions and provinces. In the past years, therefore, the Federal Government has assisted in the funding of road projects both under specific acts, such as The Trans Canada Highway Act, and as well under general developmental legislation providing for roads to resource areas, regional economic expansion, and the like.

Because of the substantially isolated pattern of community location in Newfoundland, which has fully one-third of the communities defined as isolated in Canada; because the Commission feels it vital to take every step to ensure mobility of the work force in a Province which suffers from chronic unemployment;

and because it appears that some of the vital industries in the Newfoundland economy currently depend on road links, and are likely to continue to do so for the foreseeable future; the Commission is of the opinion that an essential part of transportation policy for Newfoundland is a continued program of upgrading and paving of the road network within the Province, together with construction of some new road developments to complete that network. Indeed, some studies have suggested that there is a tendency to greater reliance on public transportation in this Province than in other areas of Canada. Since such public transportation operates almost exclusively on the surface, a properly developed highway system for the Province is of further importance.

1. *Trans Canada Highway*

It is clear that the present condition of the Trans Canada Highway (TCH) in this Province is generally substandard when compared to the TCH in most other provinces, even when considering the relatively low volume of traffic and the uses to which the highway is put in Newfoundland. This highway constitutes the only trans-Island road link, and therefore a large proportion of both intra- and extra-provincial passenger and commercial traffic is required to use all or portions of the highway. It is therefore essential that the highway be upgraded to an acceptable standard at the earliest possible opportunity. This need is further strengthened when it is realized that the only current method of mass public transport, the CN Roadcruiser Service, uses this highway almost exclusively. As well, the highway condition is of vital importance in the quality of the export of processed fish products from this Province, which export constitutes a very large portion of the Province's economic base, and is likely to continue to increase in the near future. It is also significant that in a study conducted for the Commission, the upgrading and improvement of the Trans Canada Highway was the largest perceived need in the minds of the sample population polled. While this in itself cannot be determinative of need, nevertheless, when coupled with the other justifications set out above, it is clear that substantial improvements to this highway are of vital importance to a large segment of the Newfoundland population and economy.

A comprehensive plan should be immediately instituted by negotiation between the Provincial and Federal Governments to take place in a time span of five to ten years, at the end of which time the entire highway will have been brought up to standard. In such a plan, it is clear that certain areas of the highway, particularly on the west coast between Crabbe's River and George's Lake and on the eastern part of the Island between the Terra Nova National Park and Gander, must be the first targets for recon-

struction. Once rebuilding of these areas has been implemented, then attention should be paid to general strengthening and upgrading of the balance of the highway, obviously predicated on an engineering analysis of traffic loads to determine those areas which most directly affect the larger portion of the travelling public.

As to the financing of this major project, the Commission is aware of existing agreements between the Province and the Federal Government for proposed cost sharing, which are generally in line with similar agreements between the other Atlantic Provinces and the Federal Government. However, the Commission is of the opinion that in the case of Newfoundland, there are special justifications to warrant a higher federal input for this project.

Firstly, it is clear that the ability of the Province to pay, both in terms of absolute financial resources, and on a per capita basis, is quite low compared to the other Maritime Provinces, and certainly to the rest of Canada. The Trans Canada Highway mileage in Newfoundland is second in length only to that of the Province of Ontario. This results in an unacceptably high per capita cost for upgrading in this Province which, in the Commission's opinion, is simply beyond the capacity of the Province to bear. Further, it is clear that in the period since Confederation, the Provincial Government has attempted to concentrate on its intra-provincial jurisdiction relating to road building to provide a network of roads to at least approximate the level of service to which other Canadians were accustomed long before 1949. In this "catch up" effort, Provincial revenues have been expended to such a degree that to require a 50% or even 25% provincial cost sharing for upgrading the Trans Canada at this point would, in all likelihood, simply lead to the failure to carry out the upgrading program, possibly at all, and certainly to the level needed.

Again, it must be realized that the highway is the infra-structure used by CN's chosen replacement for the rail passenger service, the CN Roadcruiser Service, and also by the road-based express or LCL service now substituted for the rail-based service. While it is obviously impossible to determine exactly what per cent of highway maintenance costs is properly attributable to use of this road by these CN services, and while that amount is undoubtably small in relative terms, nevertheless the Commission feels that it is the *principle* which is important, rather than the absolute figure in this case. The Federal Government has chosen to replace rail services with highway services. Thus, the federal responsibility for maintenance of the railway has been marginally reduced, and, in effect, the Province is asked to provide the maintenance of the substituted "line".

Overall, the Commission is of the strong opinion that regardless of what arrangements may have been

made at the time of entering into the original Trans Canada Highway agreements, and regardless of arrangements which may be found acceptable to the other Atlantic Provinces, the Province of Newfoundland needs immediate, urgent and special financial assistance to enable it to reconstruct the Trans Canada Highway to a standard equivalent to that *at least* in the Maritime Provinces. The failure of this project to come about immediately will, in the Commission's opinion, have a most serious and deleterious effect on the general economy of the Province, and as well upon the coming into place of the optimum transportation system. In this regard, subsequent examination of the role of the trucking industry in this Province, and the continued importance of that industry, make it clear that the provision of a high quality corridor route is of vital importance, not only to serve the current levels of truck traffic, but also the increased levels likely to occur in the future.

From the evidence available it is likely that the cost of an adequate upgrading program for the Trans Canada Highway in Newfoundland would approximate \$250 million. The Commission recommends that federal financing to at least the 90% level be made available for that upgrading.

2. Provincial Highways

The Commission recognizes that its federal mandate does not warrant a detailed analysis and recommendation function in relation to the responsibilities of the Province regarding what may be termed purely provincial roads. However, as stated above, it is clear that the road system as a whole, including provincially built and maintained roads, is a vital element in the transportation network. Therefore, the Commission has felt it proper to devote some consideration to the provincial road network and to make some general recommendations thereon.

It is clear that under the existing transportation patterns in this Province, which are likely to continue, certainly within the short run period, some of the major industries rely on road transportation to a very great degree for the transportation of raw materials for processing, and equally as important, for the transportation of finished products to market. For example, the fishing industry in Newfoundland, which at the present time and within the next twenty years seems certainly likely to constitute a major element in the economy of the Province, relies practically exclusively on road transportation for the collection of fish from landing stations and, equally as important, for delivery of finished product to mainland Canadian and United States markets. Indeed, it may not be inaccurate to say that the fishing industry and fish produce are to Newfoundland what wheat is and has been to the Prairie Provinces, in terms of forming a basis for the economy of the region. Also, Newfoundland fish

products form a primary export product for Canada, since the vast majority of Newfoundland production is, in fact, exported from this country, and therefore the vital interest of the country as a whole in maintenance of optimum fish production, is clear.

The Commission is also aware of the extensive use of roads by the forest industry, primarily in the trucking of raw materials to the manufacturing plants. Again, the Commission is satisfied that the continuing availability of road transport for these purposes is of pivotal importance economically to the viability of these industries. Any substantial increase in costs through deterioration of roads and consequent higher trucking costs could well lead to serious consequences in terms of the viability of existing plants in this Province. It is therefore vital to ensure that every step which can be taken is taken to continue to improve the roads relied on by this industry.

The Commission therefore recommends that the Province develop a comprehensive plan of road priorities, giving prominence to the upgrading and paving of roads connecting major fishing plants to the Trans Canada Highway. As well, upgrading and possible paving of roads connecting forest cutting areas to the highway network should also be given high priority. Such a program, when coupled with the rebuilding of the Trans Canada Highway itself, should ensure that the road network does not constitute an impediment to the proper development and continuing viability of the fishing and forest industries. Some roads obviously falling into this category would be the continuation to completion and paving of the Northern Peninsula highway, upgrading and paving of the Witless Bay Line connecting Southern Shore fish plants more directly with the Trans Canada Highway, reconstruction of the link from St. Alban's to Hermitage to service fish plants in that area, and completion of the South West Brook-Burgeo road link.

The Commission can do no other than recommend that such important roads be both upgraded and paved. It would appear from past experience in Newfoundland that it is not sufficient simply to recommend upgrading of roads to gravel highways. It is clear from our history that because of our severe climate, gravel highways just do not form an acceptable mode of transport during a considerable portion of the year because of half load limits, snow clearing difficulties in winter, and the like. To reconstruct roads simply to that level would therefore be somewhat counterproductive and would not solve problems of damage to product, particularly in the fishing industry, which constitute a most important consideration.

3. New Road Construction

In addition to an immediate program for upgrading and paving of certain existing roads, the Commission

recommends that provincial priority also be given to development of a plan for construction of certain new roads which, in the Commission's opinion, will likely be essential to fully develop both the industrial and employment capabilities of the Province. As well, the Commission is of the opinion that continued and perhaps increased Federal Government participation in such programmes through shared cost financing is warranted, not only from the point of view of assistance in simply ending isolation to some areas, but as well from the point of view of possible cost savings through reduction in coastal boat service which would come about once such isolation is ended. As well, generally from the point of view of aiding the economy of a depressed region, assistance for new road construction is warranted.

The Commission recommends immediate consideration of a link from the current South West Brook-Burgeo road to the town of Buchans and then through to the Trans Canada Highway at Bishops Falls. The Commission is persuaded that such a road link could provide benefit to residents of Buchans from a shortened connection with west coast employment opportunities, but as well, and perhaps equally important, would also provide a benefit to eastbound and westbound trans-Island truck and passenger traffic by providing an alternate and shortened link with the central area of the Province. Direct and secondary developments from such road construction should also be of benefit to the town of Buchans and surrounding area.

Another major road link, the feasibility of which should be given consideration within the next five years, is construction of an east/west highway connecting the Connaigre Peninsula to the Burin Peninsula. While the cost of construction of such a road would certainly be extremely high in view of the severe terrain to be encountered, nevertheless the Commission feels that serious consideration must be given to its construction in order to provide a direct link between two major south coast centres, the Burin Peninsula and the Connaigre Peninsula. Possible development of mainland ferry connections to one or both of these peninsulas would in itself justify the construction of a more direct connecting link. As well, since the one remaining area of complete isolation on the Island is the portion of the south coast westward from the Connaigre Peninsula to Burgeo, it is only reasonable to assume that effort will have to be made in the medium to long run for construction of a link along that portion of the coast. If this occurs, then with the completion of the South West Brook-Burgeo road and the construction of the Connaigre Peninsula-Burin Peninsula road, there will then exist an alternate all-south coast road network linking the west coast of the Province directly with the Burin Peninsula and the Avalon Peninsula, bringing with it

an end to isolation, coastal boat savings, and increased development potential for resources and tourism.

In its examination of roads and the road network generally in Newfoundland, the Commission has been fully aware of the almost total lack of road development in Labrador. It is supposed that high costs caused by difficult terrain and adverse weather conditions, and as well, the relatively small population in Labrador, have in the past been the prime reasons why road construction there has not kept pace with that on the Island. The Commission is convinced, however, that these justifications can no longer be sufficient to warrant the lack of attention to the needs of this large portion of the Province.

There is every indication that in the coming years, hydroelectric development will continue to take place in Labrador. As well, there are already substantial mineral deposits being worked in the western portion, with prospects for future development there and at other locations in the centre and the east. Considerable forest products are also available in Labrador provided that economic transportation methods can be found to bring these products to processing areas. All of these basic resource industries require, in the Commission's opinion, development of at least one road link with the Island of Newfoundland. Whether that link crosses the Strait of Belle Isle by ferry or subterranean tunnel is not of particular importance at this time. What is important is that there be a regular connection, certainly during the navigable season, between the Island and Labrador.

The Commission recommends the immediate updating of the existing feasibility study into the construction of the Trans Labrador Highway and if continued feasibility is found, a start on construction as soon as possible. Priority would be given to the section of the road from Goose Bay to Western Labrador. The Commission believes that construction of such a road would bring with it tremendous advantages to the residents of Labrador both in terms of employment opportunity and as well in the development of spin-off industries through establishment of communities, increased mobility leading to increased tourism, retail development, and the like. Exploration for oil and gas is continuing off the coast of Labrador and if commercial quantities of this resource are found, it will play a very significant role in the development of this region.

Apart altogether from the material advantages to the Province which would accrue, the Commission believes the current political situation in the Province of Quebec cannot be ignored. It is clear that if past practice is to be the pattern for the future, road links will be established with western Labrador through the Province of Quebec. To have links with Churchill Falls, Labrador City and Wabush through another province,

while at the same time isolating these communities from any road link with the rest of Newfoundland would, in the Commission's opinion, be an abrogation of the responsibilities of both the Provincial and Federal Governments. It is, in fact, a very serious consideration that a substantial portion of the Newfoundland population would have to rely on another province for its only ground link with the outside world. This, in itself, is sufficient justification in the Commission's opinion for immediate commencement of development of the Trans Labrador Highway. The Commission foresees that this highway would flow from Labrador City/Wabush in the west, through Churchill Falls, to Goose Bay, and then southeasterly to link up with the existing short portion of highway in the Red Bay area.

As to funding of this highway, it is clear that the size of the task and the likely costs, last estimated in the vicinity of \$350 million, render it outside the capabilities of the Province. Negotiations should take place to permit a majority cost sharing by the Federal Government. The Commission is of the opinion that such sharing can be justified in the national interest, and as well again from the point of view of opening up an untapped area of resource. Once the Trans Labrador Highway program commences, it will, of course, also be necessary to upgrade and expand the existing road from the Newfoundland/Quebec border east to Red Bay, in order to provide the connector with the existing ferry crossing to the Island of Newfoundland.

The Commission recommends that consideration be given to a feasibility study of ferry/Hovercraft surface linkage or alternately, underwater tunnel linkage across the Strait of Belle Isle. In this connection, the Commission recommends, again on the basis of possible national and provincial interest, that consideration be given to having the ferry terminus on the mainland side located within Labrador rather than within the Province of Quebec as at the present time. However, this would cause this ferry operation to lose its character as an interprovincial ferry coming clearly under federal jurisdiction, and to become instead an intra-provincial ferry under provincial control. The substantial existing costs of this operation are such that the Commission believes that negotiations between the two governments would be necessary to ensure that adequate funding would be available for continuation of the ferry service should the terminus be relocated.

Concerning the total road network in Newfoundland the Commission stresses the importance of the development of a network which conforms as closely as is economically and physically possible to the standards prevailing in the rest of Canada regarding load limits and the like. Since truck transportation will likely continue to play a very important role in the

transportation system, it is vital that all artificial barriers to efficient transport of goods from the mainland to Newfoundland by road be removed or lessened in the planning stage. Certainly, upgrading of the Trans Canada Highway and, where feasible, upgrading and construction of the secondary road system should be such as to provide for uniformity in terms of loadings and limits between Newfoundland and the Maritime Provinces. As well, of course, continuing maintenance and upgrading of the road system in the long run should be carried out subject to the requirement that it be a first class highway and that standards in the Maritimes be used as the minimum guide in this Province, to prevent a falling behind from occurring, ten or twenty years down the road.

Another point in connection with secondary road upgrading is that every effort should be made to investigate the feasibility and practicality of some other form of road surfacing other than the conventional hot mixed asphaltic or concrete surfacing. Should it be determined that surface treatments such as chip sealing can be made practical for application in this Province, the Commission is of the opinion that use of such processes should be encouraged in order to save cost. This will not be a popular suggestion to many Newfoundlanders who have become used to the idea that the only proper highway is an asphalt paved highway. However, the Commission points out that surface treated roads are in widespread use in other areas of Canada and the world where volumes of traffic are light and are functioning well. Because of the economic position of the Province, the Commission is of the opinion that if monies can be saved overall by providing surface treatment for roadways, then that money should be so saved and used for the completion of upgrading and construction of the balance of the road network.

4. Summary of Recommendations

35. That within a period of five years, the Trans Canada Highway in Newfoundland be upgraded and rebuilt where required, to a standard sufficient to meet anticipated traffic and load requirements.

36. That first priority be given to reconstruction of the sections of the Trans Canada Highway between the Terra Nova National Park and Gander, and between George's Lake and Crabbe's River.

37. That the Federal Government contribute at least 90% of the cost of the rebuilding referred to in recommendations 1 and 2.

38. That the Province of Newfoundland immediately commence development of a comprehensive plan for upgrading and construction of major roads within the provincial highway network, with first emphasis being given to paving of roads linking major fishing and forestry industries to the Trans Canada Highway corridor.

39. That Federal-Provincial cost sharing be negotiated for construction of road links from the South-west Brook-Burgeo road, to Buchans.

40. That the Province determine the feasibility of construction of a road link from the Connaigre Peninsula to the Burin Peninsula and for construction in the medium to long run of a link from Burgeo to the Connaigre Peninsula.

41. That the existing feasibility study of the Trans Labrador Highway be immediately updated and agreement negotiated for commencement of construction within the immediate future on a majority Federal cost shared basis.

42. That a feasibility study be commenced immediately by the Federal and Provincial Government into the optimum mechanisms for crossing the Strait of Belle Isle.

43. That all road upgrading and construction be to weight limit standards equal to or greater than the highest applicable in the Maritime Provinces.

44. That for certain secondary road construction and upgrading, the use of chip seal treatments be considered and tested for cost saving features.

45. That a feasibility study concerning a causeway connection to Fogo and Change Islands be investigated in the immediate future and if preliminary cost figures indicate that the project is not out of the question then a detailed feasibility study should be initiated.

Highway Freight Services

The National Transportation Act of Canada indicates that one of the purposes of national transportation policy is to promote competition between modes and within modes, where such competition is determined to be in the public interest. It is clear that both the Federal and Provincial Governments have determined that unrestricted competition in the field of truck transport is not desirable in the public interest. Since the mid-1960's, therefore, this field has been regulated both with regard to entry into and exit from the market, and as well as to rates and other operational aspects.

The Commission accepts the principle that free and unrestricted access to this mode can result in harmful consequences to the general public and to the trucking industry itself, primarily through the inability of carriers to maintain a service once licensed to do so, and through the proliferation of many small carriers so fragmenting the market that economies of scale cannot be achieved. The Commission supports the general principle that regulation within the truck transport segment must be continued.

In stating this, the Commission has given careful consideration to the problems inherent in the existing dual system of jurisdiction and responsibility. As indicated in Chapter 2, this field is shared, with the

Federal Government having jurisdiction and responsibility for transport which in essence links one province with another, while the Provincial Government has jurisdiction over purely intra-provincial transport.

It would appear that in a majority of cases this duality has not caused undue difficulty in the proper regulation of motor vehicle transport to promote an efficient network. It appears that the mechanism whereby the Federal Government designates as its board for federal purposes, the same individuals who comprise the Provincial Motor Carrier Board, preserves a measure of uniformity in the application of procedures and standards. This is further achieved by the fact that under the federal act the various boards are specifically authorized to consider applications in the federal field on the same basis and according to the same procedures and principles as for provincial applications.

However, the Commission notes a problem inherent in any such system once the necessary regulatory power expands beyond the individual province. In the case of Newfoundland, all road freight leaving the Province must, in order to reach the central part of Canada and the United States, which constitute the main markets for Newfoundland exports, pass through one or more of the other Atlantic Provinces. This is, of course, also true for the Provinces of Prince Edward Island and Nova Scotia. Since regulation of the federal jurisdiction for extra-provincial operation through these provinces is conducted by the respective motor carrier boards in each province, acting according to their separate provincial principles, there exists a potential for variation in the standards applied under the federal legislation. While it may be true that in the past this problem has not been great, it is clear that the possibility exists for conflict between provincial jurisdictions when interpreting and applying the federal legislation.

As a result of its investigations, and as well from the representations made during the public hearings, the Commission is satisfied that the fishing industry now constitutes one of the brightest hopes for industrial strength for the Province. While the history of the fishery in past years has been marked by uncertainty and unpredictability of catches, the coming of the two hundred mile Economic Zone and the evident increasing commitment by both the Provincial and Federal Governments to support the fishery, make it clear that during the foreseeable future, this industry should play a very important part in Newfoundland's growth.

The Commission has, as previously mentioned in this report, examined closely the effect of transportation modes and facilities on the fishing industry. This examination shows that currently, the fishing industry in Newfoundland is almost totally dependent on road tractor trailer transport for the export of fish off the Island of Newfoundland, through the Maritime Prov-

inces and into the United States market. Historically, ocean going vessel transport was used for the export of most of Newfoundland's fish products. However, it is clear that with the coming of a more extensive and better quality road network, Newfoundland fish producers have switched to the truck transport mode almost completely. The Commission has been told that this mode provides the most regular and most reliable method of fish transport to the United States markets.

It is clear that the fish producers intend to continue to use the truck transport mode rather than to voluntarily switch to any of the other modes.

While the Commission is aware that carriers in some other modes, notably air and water, are intending to make an expanded effort to provide equivalent transportation services to the industry, nevertheless the Commission is firmly of the opinion that for the next five to ten year period at least, the truck transport mode will form the basis of the transportation of fish products from Newfoundland.

The Commission is aware that because of the almost total dependence on truck transport, any interference with the ability of such transport to operate smoothly out of Newfoundland would constitute a serious, if not crippling blow to the fishing industry of this Province. Indeed, it is entirely possible that such an interruption would not merely ruin the fishery for one season, but through displacement of the Newfoundland product in the market by other competing goods, might have a serious adverse effect on the fishing industry for years after. It is thus essential that every step be taken to ensure that the existing regulatory process provides a free and optimum flow of truck transport off the Island.

Since the Federal Government has the legislative control over this process, the Commission recommends that the Department of Transport maintain a constant vigilance over the functioning of its delegated authority in the individual provinces, and take whatever steps may be necessary, through legislative amendment, or through direct assumption of regulation by the CTC, to ensure that should problems develop, the flow of product is not restricted during the period while such problems are resolved.

Two areas come to mind as easily foreseeable possibilities: in the first instance, there could be a substantial increase in fish landings in the Province, requiring a concomitant substantial and sudden increase in the number of licensed carriers authorized to come into Newfoundland and to carry fish products to the United States.

The second possibility would occur if there were a sudden reduction in available carriers. A situation of this nature occurred in the Province of Newfoundland several years ago, when one of the major carriers licensed to carry temperature controlled products into

and out of the Province ceased operations in Newfoundland fairly suddenly. In such a case, it is obviously necessary for existing carriers to attempt to increase their fleets quickly to meet the excess demand thus created. As well, other carriers may find that the increased demand would support their becoming involved in the Newfoundland operation. In such cases, every effort must be made by the Federal Government to ensure that licensing bodies, not only in Newfoundland, but in the corridor provinces, are fully aware of the catastrophic effect which delay or failure to authorize the adequate supply of vehicles could very well have on the Newfoundland fishery.

In addition, officials of Government should be readily available to present evidence in motor carrier hearings, both in this Province and elsewhere, in order to ensure that the true importance of uninterrupted truck service to Newfoundland is placed before the regulatory authorities. The Commission is satisfied that when a true picture is presented, these authorities will in all likelihood react swiftly by granting licenses to meet the need.

The Commission recognizes that in the future, when alternative competing modes have had an opportunity to develop their expertise in the transportation of fish from Newfoundland, it may well be, that fish producers will spread the carriage of their goods among such modes, or will at least be in a position to switch to the alternate modes if one mode should become for any reason unable to meet the demand placed on it from day to day. At such a time, obviously the dependence on truck transport would be lessened, and the concern of the Commission as expressed in this section would as a result be of less practical importance. However, unless and until such competing modes become established and viably usable by the fishing industry, it is vital that the trucking industry be protected in the manner specified above in order to protect what is now one of the brightest hopes, if not the brightest hope, of the Newfoundland economy.

While the problem referred to above is not exclusively one related to the fishing industry, nevertheless this example serves as perhaps the clearest indication of the dangers inherent in the system as it now operates. The principles are the same regardless of the goods carried, and they must be carefully considered in order to prevent harm to the economy of Newfoundland or indeed to any individual province, through decisions in other provinces arising out of a failure to fully appreciate the economic impact of such decisions.

Closely related to the regulatory aspect of the trucking industry is the paucity of data on its operations in the past. The Commission has been surprised to find that although the trucking industry operating in Newfoundland has increased dramatically during the

past decade or so, neither the industry itself through its trade associations, nor the governments, have yet amassed any significant statistical data allowing an investigation of all aspects of this mode. Certainly, this places the trucking facility at a disadvantage when compared to facilities in other modes which can be studied carefully from the comprehensive data maintained. The Commission recommends, therefore, that an immediate program of reporting to regulatory agencies be implemented, so that these agencies will, over a period of time, develop sufficient statistics as to routes, volumes, rates, costs, and the like. Only in this way will continuing evaluation of the industry be possible, together with the ability to take the necessary steps to ensure that the industry is placed on an equal footing in intermodal competition.

The Commission has also been made aware of the difficulty caused in the Newfoundland truck transportation field through the establishment and holding of municipal holidays throughout the Province on varying days, both with and without notice. The Commission has considered this complaint and is of the opinion that it is a valid one from the point of view of rationalization of schedules and maximum efficiency of operation. Surely it is desirable to require that municipal holidays which are known in advance should be gazetted or in some other fashion brought to the attention of the trucking industry so that scheduling can take these holidays into account and thus benefit both the carrier and the shipper.

Furthermore, the Commission is aware that weight standards in Newfoundland are at variance with those existing in the rest of Canada, particularly in the Maritime Provinces, through which extra-provincial traffic to and from Newfoundland must pass. The ability of trucks to carry heavier loads in the Maritime Provinces, with the restrictions on such loads when crossing into Newfoundland, operates as a severe constraint on efficient operation of the carrier. Similarly, the necessity to load lesser weight in Newfoundland for shipment to the mainland is also an inefficiency. In the preceding section dealing with the road system, the Commission recommended that during the highway upgrading program, efforts be made to ensure that where at all possible and economically feasible, construction be of a standard so as to allow uniform weight classification with at least the other Atlantic Provinces. Such a program must be a continuing one so that as general weight limits increase in the rest of Canada, the highways of Newfoundland will be adequate to allow such weight increases.

During the course of the public hearings, the Commission was urged to consider the application and enforcement of safety regulations and standards concerning the carriage of goods, both as they apply to the conditions of truck transport themselves, and as well as to the nature of cargo. The Commission is

advised that there is a set of Federal regulations under preparation which will govern the carriage of all classes of goods which can be considered dangerous. When implemented, these regulations should, in the Commission's opinion, improve the capability of fire fighting and emergency organizations to deal with hazards caused by cargo, and the Commission therefore supports the immediate completion and introduction of a comprehensive set of regulations of this nature.

With regard to the condition of vehicles and equipment, the Commission recommends that the regulating or licensing body be provided with sufficient staff to ensure that a regular program of inspection and licensing is carried out concerning the operation of these vehicles. The Commission is satisfied that with the staff available to it, the Newfoundland Board of Commissioners of Public Utilities, Motor Carrier Division, has done a satisfactory job in this regard to date. However, with the continuing increase in truck traffic, it is not unreasonable to predict that within the near future, more inspectors will be required and the Commission advocates that these should be provided. Since a portion of the goods being inspected will be extra-provincial traffic, the Commission is of the opinion that the cost of services of such inspectors should be cost shared by the Federal and Provincial Governments on a fifty-fifty basis, since it is only proper that each government contribute toward the cost of administrative services required to ensure adherence to the licenses and regulations of that government.

During its investigations, the Commission was concerned to learn of the relatively few Newfoundland based vehicles available for the carriage of temperature controlled freight out of the Province. Because such an important portion of Newfoundland's economy depends on the export of fish, the Commission feels that, as a matter of policy, consideration should be given to the encouragement of a Newfoundland based motor carrier fleet for the primary purpose of export of fish products to Mainland and United States markets. While this fleet will be required to operate under the extra-provincial jurisdiction of the Federal Government, it is essential that at least a minimum provincial capacity be established with appropriate licenses, in order to meet fluctuations of demand which might occur from time to time. Such provincial capacity does not mean that the vehicles themselves must be owned by Newfoundlanders. Rather, it means that sufficient vehicles must be stationed in the Province to provide a minimum reserve capacity in the event that problems arise at any particular time during the peak shipping season. Should carriers based outside the Province be unwilling or unable for economic reasons to provide such a fleet, then the Commission feels that careful consideration must be

given to the possibility of licensing on a preferential basis if necessary, of sufficient carriers based within the Province to satisfy this need.

Turning from the regulatory aspect of motor transport, the Commission points out that its previously recommended improvements to the highway system should do much to reduce the costs of transportation, through lower maintenance costs and perhaps slightly increased fuel efficiency through more economical speeds being attainable on secondary highways. It is anticipated that in the competitive market now existing in the trucking industry, this will have the result of lessening the rate of increase of tariffs and charges. This fact in itself is yet another justification for implementation of a highway upgrading program.

In the Labrador region, it is clear that in the absence of any substantial paved or first class gravel road system, there cannot be developed at the present time any appreciable trucking industry. Nevertheless, the Commission has recommended implementation of a road construction program in order to establish a Trans Labrador Highway. Once such a system is established, government will be faced with the licensing and regulation of both intra-provincial and extra-provincial traffic on that system. Obviously, the same criteria should be used as for the Island portion, with the exception that it must be recognized that operational costs will undoubtedly be considerably higher in the Labrador area due to extra costs of maintenance, severe weather and the like. Because of the small population in Labrador, the development of a full system of truck transport may not be spontaneous, and the Commission recommends that positive steps be taken at the earliest opportunity to encourage and support the development of a Labrador trucking industry.

Again, in connection with fees and tariffs, the Commission recommends the immediate implementation of an "assumed use" fuel tax to motor carriers entering the Province, similar to that in effect in several other provinces. The Commission feels that the implementation of this tax would increase provincial revenues and would ensure that motor carrier operators contribute a fairer proportion of expenditures within this Province related to contracts for carriage arising out of Newfoundland operations. Such a requirement should not prejudice local carriers since they presumably would use a higher proportion of fuel bought in Newfoundland. Furthermore the Commission notes that trucks entering Newfoundland with full main and reserve tanks are not contributing to the tax base in Newfoundland. Certainly, from the point of view of contributing toward overall highway and infrastructure costs, the fuel tax generally in the Province is a substantial source of revenue. To allow a large segment of the trucking industry to reduce the payment of such tax is to reduce the user's share of

maintenance cost. To do this results in an unfair picture of hidden subsidies and costs. The Commission feels it unlikely that the imposition of such a charge would reduce to any significant degree the willingness of non-Newfoundland based carriers to operate into and out of the Province. In any event, any such reduction could easily be offset by an increase in the Newfoundland based extra-provincial motor carrier fleet which has only started to develop over the past three or four years and which has certainly not yet reached its full potential.

The purpose of imposition of such a tax is to create additional funds to support the highway infrastructure. Such imposition would necessarily be accompanied by the requirement that revenues earned from this source be specifically allocated to maintenance and upkeep of the highway network, and not for general expenditure in the Province.

The Commission also recommends that careful consideration be given to construction of general warehousing facilities at St. John's, the west coast and central Newfoundland, to serve as "for hire" depots for the delivery, particularly by small shippers, of freight to be carried by public carriers. Particularly in the larger centres, traffic congestion is increased by the lack of any central warehousing facility and at the same time extra costs arise to the carrier and to the shipper. The provision of such central warehousing facilities where freight could be stored and carriers based, all on a space rental basis, should assist in reducing costs to both shipper and carrier, and through efficient loading and unloading facilities, freight delivery.

As well, the regular scheduling of freight delivery services both on the corridor route across the Island and on the trunk roads to the smaller communities should be facilitated by such depots, since there will be a central location for the regular interchange of freight between smaller and larger carriers. It is currently impractical for the small carriers to be required to have their own warehousing facilities in the major centres, and this fact certainly discourages interlining at present, which in turn, adversely affects the establishment of regularly scheduled trucking services.

Because of the importance of the development of an efficient interlining system, the Commission intends to further study and report on the optimum location of such warehousing facilities, together with recommending a mechanism of optimum financing of such developments.

The Commission has considered the position of Canadian National Transportation Limited (CNTL), which is the trucking branch operated by CN primarily for the carriage of its express freight formerly carried on the railway. Because of the potential size of this carrier and its close ties with government Crown corporations, the Commission feels that a potential

monopoly situation should be discouraged, and that further expansion of CNTL routes in Newfoundland should be postponed until it is clearly shown that such expansion is warranted, either by the private trucking industry having reached such a stage of maturity that it can compete on even terms with a Crown corporation, or by clear evidence that private carriers are unable to provide adequate services to some areas of the Province. On this latter point, and as well, on the problem of the lack of scheduled services, particularly on the corridor and main trunk routes, the Commission recommends that the provincial regulatory authority investigate the possibility of requiring scheduling of some services and coverage of certain routes, as a condition of granting licenses, particularly on intra-provincial routes.

Concerning the question of currently existing subsidies for the trucking industry, the Commission has previously set out its recommendations as to the application of the selective subsidy principle to the various modes, including the trucking industry, and will not restate these recommendations here. It should be noted that processing delays in Ottawa result in high carrying charges and considerable inconvenience and other expense to truckers. The Commission recommends that every step be taken to ensure that delays are cut to an absolute minimum since it must be realized that in the present competitive situation, the subsidy is treated as an integral part of the rate structure and any delay in receipt of subsidy payments constitutes a business expense to the trucker which must be recovered through charges to the consumer.

A large and important aspect of the trucking mode relates to the Gulf crossing. It is clear that the costs and the time factor associated with this water connection with the mainland constitute a very important segment of total trucking costs and industry efficiency. The specific aspects of the Gulf crossing affecting the trucking industry, and recommendations for improvements in this area are made in the examination of the Gulf services themselves, contained in another part of this Chapter.

1. Summary of Recommendations

46. That the Federal Government ensure that federal regulation of the trucking industry is carried out in such a manner as to be aware of and responsive to the necessity of maintaining an extra-provincial flow of fish products from Newfoundland.

47. That the Provincial Government ensure that its officials are available to give evidence to regulatory authorities concerning the need to ensure adequate supply of carriers licensed to transport fish products from Newfoundland.

48. That regulatory bodies immediately institute a program of required reporting by, and data gather-

ing relating to, the trucking industry so as to develop sufficient statistics to enable the industry to be evaluated on an equal basis with other modes.

49. That provincial municipal holidays be gazetted in advance to provide information to carriers as to possible loading and unloading difficulties affecting scheduling of trucking services.

50. That a comprehensive code for carriage and labelling of dangerous goods be developed and immediately implemented.

51. That the Federal and Provincial Governments cost share on a fifty-fifty basis the provision of motor carrier inspectors sufficient to continue to adequately police the licensing and regulatory standards set by both governments.

52. That development of a Newfoundland based fleet of temperature controlled freight vehicles be encouraged.

53. That upon establishment of an adequate road system in Labrador, licensing requirements for the carriage of truck freight in Labrador be such as to encourage development of a truck freight service equivalent to that available on the Island.

54. That the Province implement an "assumed use" fuel tax similar in application to that in effect in other provinces, and that the proceeds from such tax be designated for highway maintenance and upgrading uses.

55. That consideration be given to establishment of central warehousing facilities in major centres.

56. That further expansion of Canadian National Transportation Limited trucking routes and services be permitted only after establishment of competitive services or where private trucking is not able to adequately service particular areas of the Province.

57. That the Provincial Motor Carrier Authority consider the feasibility of requiring the provision of service to certain areas and scheduled deliveries as a condition of granting licenses, particularly for intra-provincial services.

58. That every effort be made to reduce or eliminate processing delays for federal payment of trucking subsidies.

Public Bus Transportation

The Commission has felt it best to combine under this heading both the federally owned and operated CN trans-Island Roadcruiser bus system, and as well the operations of feeder bus lines in the Province.

Examination of the existing bus services in Newfoundland reveals that the system in this Province is still in its infancy. This is the natural result of the fact that it is only in very recent years that sufficient numbers of paved trunk and feeder highways have existed to make economical bus operation feasible. Studies have suggested that the percentage of poten-

tial users of public transportation including bus, in Newfoundland is relatively high when compared to the Canadian norm. This may be due to the low level of income and the long distance span between major communities and centres both on the corridor, and between the corridor and other areas.

The Commission considers that if it is a legitimate object of federal and provincial expenditure to assist in the ending of isolation and to provide for mobility of population in order to increase employment opportunities and promote industrial development, then such purposes cannot merely be achieved by the provision of roadways and physical connections which link communities. Rather, the Commission has determined that the provision of a vehicular system operating on such roadways, which would be available at reasonable cost to the general public, is an essential element if true mobilization and an end to isolation are to be achieved.

The provision of intra-provincial bus services is jurisdictionally within exclusive domain of the Province. However, the Federal Government has seen fit to replace the rail passenger service in Newfoundland with a trans-Island bus service. Since the rail passenger service was constitutionally the obligation of the Federal Government, and it has voluntarily assumed the provision of a substitute passenger service by road, this federal obligation should continue. The Commission has recommended that passenger related subsidies should be made available to *all* surface modes, and not just to rail as is now the case. On this analysis federal assistance for public passenger service networks should be encouraged. As well funding assistance from the Federal Government for the establishment of feeder bus lines and facilities will enable, eventually, discontinuance of some coastal services and through the resultant saving to the Federal Government, funding for feeder bus routes can also be justified.

Because of the infancy of the bus system in Newfoundland, there is now a unique opportunity to develop an efficient bus network, unencumbered by major existing physical plant and route commitments. It should be possible, with financial assistance from both levels of government, together with co-operation in planning and regulation, to develop such a system.

The Commission will now examine the two major elements of public bus transport in the Province.

1. Canadian National Roadcruiser Service

The Roadcruiser bus service operated by Canadian National constitutes the main corridor link across the Island of Newfoundland. There is no corridor operation in Labrador and such an operation cannot be reasonably expected until sufficient roads of proper standards have been constructed. When a road system has been developed in Labrador then the

following recommendations would apply to that area as well.

During the course of its hearings, and from examination of surveys carried out at the Commission's request, it is clear that the equipment operated by CN on the trans-Island bus service is different from that operated practically everywhere else in North America for long distance coach travel. Surveys have revealed that the average trip length in Newfoundland is longer than typical intercity distances on the mainland. The service in Newfoundland is primarily of a long distance nature and therefore this must be the yardstick used in measuring standards and quality of service, rather than reference to intercity travel. As well, since the bus service is in substitution for a previously existing passenger train service, which combined ample seating, sleeping and dining facilities, and since by its nature, a bus service cannot have such facilities incorporated into it, extra effort must be made to provide a high level of seating comfort and travel smoothness. The Commission has concluded that the type of bus operated by CN is unsuitable for the nature of the service, being generally of too high a seating density and providing insufficient baggage and parcel capacity. In the Commission's opinion, the use of a deluxe standard long-distance type of coach would do much to provide a proper substitute for the rail passenger service and would also promote bus travel on the corridor, which would in itself add to the economic viability of the service. The Commission recommends, therefore, that if at all possible, the existing CN fleet be replaced immediately with coaches of the type generally operated in North America for long distance travel. Indeed, the Commission is aware that there are three new coaches in order to replace a portion of the fleet and that these new coaches are of the normal long-distance design. Should there be compelling reasons why complete replacement of the balance of the fleet cannot be implemented at once, then the Commission recommends that a program of replacement be instituted so that within three years, the existing fleet would be replaced. The total cost of such replacement should approximate 2.5 million dollars.

There has been evidence examined by the Commission indicating that maintenance costs on the existing buses operated by CN are higher than might otherwise be expected for this type of operation. Whether this is due to the type of bus in operation is difficult to say, but it appears that substitution of buses more commonly used in long-distance travel, combined with the recommended upgrading of the Trans Canada Highway, should result in considerable savings in maintenance.

In addition to its bus fleet, CN has as its other major fixed cost, depots and servicing facilities located across the Island. The present practice is to oper-

ate from some CN stations on the rail line where practical, and in other centres to use service stations, restaurants, hotels and airport terminals. There are few CN constructed facilities related solely to the bus mode.

Investigations have shown that the use of airport terminals and hotels appears to be generally satisfactory, in that substantial eating and restroom facilities are available at such points. However, the Commission notes that in some locations the use of these facilities causes inconvenience both to bus passengers and to other patrons of the facilities. It is therefore recommended that in any location at which the bus schedule results in crowding at certain hours, contractual arrangements be entered into to provide exclusive use to CN of facilities at certain hours, or alternatively, that other facilities be constructed by CN.

It is clear that at locations where the pattern of current operation and predictions for future volume show a relatively constant or increasing number of pick-up and drop-off passengers, facilities must be provided for such passengers, which will enable them to wait for the bus and connecting vehicles in comfort. In some locations there are no facilities whatsoever and passengers may be forced to wait at the roadside in such circumstances. In these areas the Commission recommends that CN provide adequate waiting room facilities which contain as a minimum, proper rest rooms, comfortable seating, simple refreshment facilities, and staff able to give information as to arrivals, schedules, and assistance to passengers in need. In some cases, the facilities which are now used in restaurants and service stations are also woefully inadequate, and proper stations must also be provided.

It should be noted that such facilities would also be used by passengers transferring to and from feeder bus lines, and cost sharing of such facilities by the Province should be a requirement. Indeed, the Commission is aware that by agreement with the Atlantic Provinces' premiers, certain MFRA/ARFAA funds have recently been made available by the Federal Government towards the cost of infrastructure for feeder bus lines. The Commission encourages the Province to take advantage of all monies available to it under this program, and further recommends that the Federal Government continue the availability of funds for this purpose.

In examining the existing CN operations, several service improvements are obviously required. Firstly, the Commission recommends the establishment of a program of better communication throughout the operation so that existing schedules, and present and likely delays, can be known to passengers and relatives, and can be provided at depots across the Island. It is essential that if full use is to be made of

the service, which is clearly desirable from the point of view of CN as well as the public, then the public must have easy access at any depot or terminal to information as to the existing operations of the service. Again, with regard to scheduling it appears that the Roadcruiser operation in Newfoundland, together with the feeder lines, is practically the only bus network in North America which is not integrated into ticketing and timetabling on a nation-wide or continent-wide basis. There is no reason why passengers wishing to travel beyond Newfoundland points should not be able to obtain precise scheduling and ticketing services, through CN operations here, and conversely, why passengers—particularly tourists—who might wish to travel to Newfoundland using the bus system should not be able to obtain adequate information and ticketing at depots on the mainland. In this age of computers, it can only surely be a simple step to integrate this ticketing, reservation and schedule information.

With regard to scheduling itself, the Commission recommends that every effort be made to co-ordinate existing schedules with ferry and air connections and with feeder lines. Where this is not possible, then additional runs should be contemplated to service traffic offering. It should be possible, ideally, to join the Roadcruiser service directly at major airports such as St. John's, Gander, Deer Lake and Stephenville, for travel to other centres on the corridor, without having to wait a substantial period of time for the arrival of buses. This might necessitate the establishment of a corridor express service, together with regional runs between, say, Port aux Basques and Corner Brook, Corner Brook and Gander, and Gander—St. John's.

Concerning fares and charges, the Commission is strongly of the opinion that since the Roadcruiser operation is a voluntary but unequal substitution for the rail passenger service, fares on the Roadcruiser must remain at a level lower than similar fares which might be expected for similar distances on a trans-Island train service. Certainly, no increase in fares must be permitted until substantial improvements are made in the facilities being offered on the corridor at present.

Further the Commission is of the opinion that there is substantial argument in favor of recommending that the Federal Government subsidize the bus operation directly, as it does for other train passenger services in Canada. The bus operation has been considered by the courts to be an integral part of the rail service operated for the Federal Government in Newfoundland, and in these circumstances, it would seem unfair to recover losses on the bus operation fully out of its own mainland rail revenues, while providing 80% subsidies for rail passenger losses in other areas. The Commission is convinced that the implementation of

subsidy on this basis would do much to allow the necessary improvements to the service.

The Commission also recommends that every effort be made by the existing operator to encourage the development of a parcel express service, together with possible charter operation. It would appear that there is a market for both of these services, certainly in the vicinity of the major centres of St. John's and Corner Brook. If the recommendations of the Commission are implemented, the new equipment will have extra space available for parcel carriage and on the basis of interlining with feeder services, should provide a speedy and well patronized parcel delivery service throughout the Island. As well, revenue to CN will increase with the establishment of such service.

In its investigations, the Commission has also been made aware of the fact that a substantial number of passengers carried on the CN Roadcruiser service are employees of CN, particularly employees being carried to the ferry terminal in Port aux Basques. The Commission recommends that the pass system for such employees be replaced by a paying system, whereby the appropriate CN employer would be obliged to pay to the Roadcruiser operation a charge for the carriage of its employees on that service. The Commission certainly recognizes the possibility of a reduced fare based on a volume or charter basis, but nevertheless is of the opinion that proper accounting must be carried on if a true financial position of the Roadcruiser service is to be produced.

Finally, the Commission is aware of the existing proposals to have the CN bus operation in Newfoundland taken over by *Via Rail*. The Commission has discussed this matter with representatives of Via and are assured that the CN bus operation in Newfoundland would be one of several such operations carried out by that company. The Commission's major concern in relation to this proposal is that it must be certain that there is proper management of the service, with expertise in bus operations. The Commission is not in favor of transfer of the existing operation if there is any danger that the bus operation will be relegated to a secondary or tertiary role within Via operations, and will be managed at intermediate and senior levels by officials having primary expertise and dedication to the rail passenger business only.

The Commission believes that the bus operation, whether operated by Via or continued under CN, should be placed on the same basis as the Gulf ferry operation under CN Marine Corporation. That is, the Federal Government should contract with the operator for the provision of a certain level and standard of service, setting out in detail service levels and requirements, and specifying fares, schedules, routes and the like. This operation would then have an incentive to be run efficiently, and could be evaluated at the end of a 5 year trial period. At that time, if the

service had substantially improved, based on the recommendations specified by the Commission, further contractual arrangements could be entered into. On the other hand, if the operations had deteriorated, then immediate attention would have to be given to development of a new scheme of operation.

The Commission is convinced that the bus operation on the corridor route in Newfoundland can, with the proper financial assistance and expertise, be made efficient and attractive to residents of the Province and tourists alike, and that the establishment of such a system would do much to promote tourism, and mobility of the population. The Commission strongly recommends that every step be taken to direct a special effort towards development of such a service.

2. Feeder Bus Operations

While there are several feeder bus lines operating from areas off the corridor, to and along the corridor route, an examination of such services reveal that they are poorly co-ordinated both between themselves and with the corridor operation. Some of these services, such as the Fleetline bus operation from Conception Bay, operate completely independently of the CN operation. Others operate to bring passengers from the major peninsulas to the central corridor, but again do not have any formal link with the CN operations. The Commission believes that planned implementation of a network of feeder bus lines in the Province would do a great deal to assist in the development of population mobility.

As mentioned above, the Commission is aware that certain federal funding has already been made available to the Atlantic Provinces for use in public transit infrastructure. However, it is clear that the Province of Newfoundland has not yet developed an adequate public transportation policy to take advantage of these funds. The Commission therefore recommends that immediate steps be taken by the Provincial Department of Transportation and Communications to develop such a program to make full use of federal funding already offered and to negotiate future funding. In addition, the Commission maintains that the Federal Government should favorably consider funding to feeder buslines in Newfoundland, since such assistance fits in generally with the aim of ending isolation and assisting economic development and population mobility. As stated at the beginning of this section, the mere provision of roads is insufficient in this Province if mobility is to be encouraged.

The increasing number of paved roads in the Province, together with the recommendations of the Commission for completion of paving of other roads and construction of one or two major road links, should provide the infrastructure necessary to allow feeder buslines to operate. The equipment to be used on

these lines should be appropriate to the service provided, although obviously, because of shorter route length, need not be as elaborate as the corridor equipment. Nevertheless, all equipment used in public bus operations must be maintained to the highest standards. The Commission recommends in this regard that the Provincial Government rigidly enforce safety and health inspection standards currently existing, for the operation of both the corridor and feeder bus equipment.

As to scheduling, co-operation will obviously be required between the corridor operation and the feeder lines in order to ensure that maximum efficiency is achieved, while at the same time providing linkage for passengers between the two systems with a minimum of waiting time. Again, the proposed consolidated booking and scheduling system should do much to bring this about. With the coming of scheduled runs by feeder lines, it will be possible to integrate these services as well into the North American ticketing and scheduling system.

The Commission is of the view that the provision of such a network of public transport, when combined with consolidated reservation and ticketing both within the Island and on the mainland, should positively contribute to the development of tourism in this Province. The establishment of a good system of feeder lines serving, among others, the areas of St. Anthony, Bay D'Espoir, Bonavista, Burin, and Twillingate would allow tourists coming to Newfoundland by bus, or flying to the Province, and indeed tourists arriving by motor vehicle, to make full use of such transport services, to provide comfortable and economic side trips away from the major centres.

The Commission has also recommended the institution of parcel delivery services on the corridor and feeder line operations. From its investigations, the Commission is satisfied that while the provision of such a parcel service is not now considered profitable or desirable by major trucking operations, the provision of a service on the public bus system would increase revenue for the operator, thus enabling provision of better equipment and encouraging entry into the market, and as well would provide faster and equally or less expensive transportation for small parcels.

The Commission has also considered the desirability of establishment of central bus depots in the city of St. John's, and other centres. These depots would serve not only the corridor operation, but feeder operators and municipal bus lines as well. Establishment of such depots at central locations would do much to eliminate current crowded conditions in the downtown areas of the major centres, while at the same time providing comfortable and convenient rest and waiting facilities for out of town passengers. The linking of these facilities to urban or regional transit

systems would enable passengers coming from outside the major centre to travel to work or shopping locations within the centre, through the urban network. The reverse flow would, of course, also be facilitated. It is also clear that some major feeder lines currently operating, and which might be expected to be developed under a Province-wide bus network, would also use such depots directly, thus enabling their passengers to link up either with the corridor service or with urban or regional bus services. The Commission believes that this should encourage increased travel, particularly on feeder operations, since commuting for work or shopping, would be considerably eased.

Funding for such depots should be cost shared between the Municipal, Provincial and Federal Governments concerned, since the facilities would provide benefits and infrastructure to the three levels of public transportation.

One final area of concern to the Commission is the existence of a duplicated regulatory authority for the existing bus operations in Newfoundland. At the present time, the Federal Government has chosen to regulate the Roadcruiser operation directly through the CTC, thus leaving the Newfoundland Board of Commissioners of Public Utilities to deal with the intra-Island bus network. Originally, after implementation of the Roadcruiser service, the Newfoundland Board regulated that operation as well. The Commission is concerned about this dual regulatory authority, and at the possibility for conflict in regulation, licensing, fare setting, and control, which could result. It seems undesirable to create a duality in this way when every effort must be directed to provide a co-ordinated, integrated service. The Commission therefore recommends that consideration be given to transferring regulatory control of the CN bus operations back to the Provincial Board.

In summary, the Commission considers the provision of an expanded and rationalized public transit system in Newfoundland to be one of the easiest and least costly steps which can be taken, and at the same time, one which will provide considerable immediate and direct benefits to the Province. The Commission therefore proposes to undertake a more detailed study of a rationalized public transport system for the Province and to report on this matter in the Second Volume of its report. It is hoped that when this supplementary report has been completed, the specific guidelines contained therein will enable implementation of the major recommendations contained in this report in the most efficient manner.

3. Summary of Recommendations

59. That federal financial assistance be provided to corridor bus service and considered for the feeder bus operators.

60. That the operator of the corridor service immediately implement a program of replacement of the existing Roadcruiser buses with deluxe long distance coach vehicles having increased capacity for parcel express and baggage.

61. That CN and the Federal Government co-operate in development and financing of adequate bus terminal facilities on the corridor route, containing adequate rest room, seating and eating facilities, together with ticketing and schedule information.

62. That the corridor operator establish an integrated reservation ticketing and scheduling service at all centres linked with the North American system.

63. That corridor services be co-ordinated with air and Gulf connections and with feeder lines.

64. That Roadcruiser fares be maintained at a level less than fares for equivalent rail passenger mileage, and that no increase in fares take place until substantial improvements in service have been effected.

65. That the Federal Government directly subsidize the corridor operation on the same basis as for rail passenger services.

66. That development of parcel express and charter services on the corridor be encouraged.

67. That CN employers pay for pass passengers carried on the corridor operations.

68. That the proposed operation of the corridor service by Via Rail be monitored to ensure that proper levels and standard of service are maintained and that the Via operation be assessed at the end of five years.

69. That the Province of Newfoundland immediately establish a program for development of feeder bus lines, taking full advantage of federal funding already available, and which may be negotiated in future.

70. That the Province ensure that proper safety and health standards are enforced for both corridor and feeder bus operations.

71. That establishment of a parcel express service by feeder operators, interlining with the corridor service, be encouraged.

72. That central bus depots be considered for major centres, to be used by municipal, feeder and corridor operations, and to be cost shared by the three levels of government.

73. That regulatory control of the corridor bus operation be transferred back to the provincial regulatory body.

74. That a co-ordinated system be developed between CN and other Newfoundland bus services to provide a common source of schedule information and an interlining (through ticketing) service to the general public.

Gulf Services

Analysis of the Gulf service provided by CN can be separated into four segments: 1) passenger and related vehicles, 2) truck freight, 3) rail freight, and 4) fares and tariffs. The recommendations which will follow will be divided, for ease of reference, into these four categories. It should also be noted that due to the use of common facilities to service several types of traffic, some overlapping of recommendations will be unavoidable.

Under this heading the existing North Sydney-Argentia service will also be included.

1. Gulf Freight

Considerable representation has been made to the Commission, both during the public hearings and otherwise, concerning improvements required to the Gulf freight service for truck traffic. It is clear that truck traffic will form an increasingly important segment of the transportation system to and from Newfoundland. As has been examined in the section on highway freight services, particularly with regard to outgoing shipments of fish, every effort must be made to ensure that this flow is unimpeded.

From its investigations, it seems clear to the Commission that it is impossible to reconcile completely, without tremendous additional expense and redundancy, the complaints and desires of passengers and of truck traffic on the Gulf crossing. For this reason, the Commission has concluded that it is preferable to institute a "dedicated" night crossing service, using the existing Gulf ferries for truck traffic. This would take place by the provision of a certain guaranteed space allotment for truck traffic on these ferries, although unused space could be sold on a space available basis to passengers. Doubtless, the exact mechanics would have to be worked out based on loads and related factors, but the Commission is firmly of the opinion that during the peak summer period, say from June to September inclusive, night crossings should be dedicated to truck traffic.

The result of this would be to provide a more definite schedule for truckers, allowing them to plan more efficient delivery schedules, and as well to speed loading for passengers on the day routes. It would, of course, to some degree preclude passengers from crossing in the night, but the Commission feels that in the circumstances, this is unavoidable and indeed desirable.

Related to the provision of a speedier and more efficient night crossing service for trucks in the peak period, the Commission recommends that every effort be made to reduce turn around time. Due to the reduced cabin occupancy in a dedicated truck crossing, this should be achievable.

With regard to loading and marshalling in the North Sydney and Port aux Basques yards, the Commission

has received conflicting complaints that loading is irregular and out of sequence. The Commission believes that a strict policy of first-come-first-served loading for truck traffic should be implemented, except in cases of clear extreme emergency. While it can be argued that perishable goods should always receive preference, the problems inherent in any such program and the abuses to which such a plan is open preclude recommendation of the implementation of such preference.

The Commission also recommends that every step be taken by CN and by the truckers' associations to promote the use of "trailer only" crossings. That is, truck trailers without the truck power unit, would be loaded on the ferry at North Sydney and would be removed in Port aux Basques by power units based in Newfoundland. Of course the reverse situation would also be true. The Commission realizes that because of the imbalance in freight loadings, such a program might be impractical for the small trucker. However, for the larger operators the Commission believes that it can be made sufficiently attractive, through price reductions and other conveniences, to result in a space saving on the ferries, and as well in development of a Newfoundland based tractor fleet which will stand the Province in good stead in times of emergency such as peak summer periods, and will also increase employment. Savings to the carrier on vehicle licensing should also be possible.

The Commission realizes that because of matters related to insurance and risk, there may be some dispute as to who should be responsible for loading trailers on the ferries. However, the Commission believes that in order to promote the service, CN should both accept the responsibility to load the vehicles, and should also accept responsibility for provable loss or damage occasioned by the loading procedure.

With regard to the Argentia service, which is subsumed under this heading as a Gulf service, the Commission is not convinced, on the basis of present statistics, that there is sufficient demand to warrant a dedicated truck ferry. However, the Commission wishes to further investigate this matter, especially since the announced intention by the Provincial Government to develop frozen fish holding depots at Argentia. This study will also consider the desirability of a stop on the Burin Peninsula, as has been requested by some truckers to facilitate movements of fish from that peninsula to the mainland. Again, because of volumes, and because of reservation and scheduling problems which would result, the Commission cannot immediately recommend the implementation of such a program but will further investigate the matter and report.

Concerning the existing schedule of the ferry service to Argentia, the Commission considers that a trial

implementation of a year round service is warranted with twice-weekly service during the off season. While costs and volume of traffic are difficult to predict, the experience on the St. John's-Goose Bay service provided by the *'William Carson'* suggests that public and business acceptance may indeed be greater than predicted, and that a year-round Argentia service might be warranted.

2. Gulf Passenger Services

A great deal of representation, both from organized groups and individuals, was received by the Commission concerning the standard of passenger services offered on the Gulf. It is impossible, and it is not desirable, for the Commission to deal specifically in this report with each requested improvement. Nevertheless, some of the areas of concern have been investigated by the Commission and are of sufficient importance to warrant recommendations.

It is the Commission's belief that the Gulf passenger service, and to a lesser degree the Gulf freight service, is in effect a substitute for a ninety mile road link with the rest of Canada. Other provinces, except Prince Edward Island, are linked border-to-border by roads, and the Commission believes that it should be an operating principle that, to as great a degree as possible, the Gulf service for passengers should be treated as a road link.

This being the case, it is clear that the Gulf service should be directed toward the provision of simple transportation for a vehicle and its passenger load, while matters of overnight accommodation, restaurant facilities, entertainment and the like, should be viewed as an extra service, rather than as an essential part of the crossing. The Commission accepts the fact that CN is not in the business of providing a luxury cruise, and while it is arguable that provision of certain extra facilities might promote tourism into Newfoundland and should therefore be continued and expanded, the Commission feels that such facilities can be identified and either subsidized directly, or paid for by the user.

Related to its recommendations concerning truck traffic, the Commission recommends that during the peak summer period, passenger traffic be placed on a dedicated, day time crossing basis. The provision of quick turn around service should be expanded to provide as much capacity for passenger traffic as possible during the peak summer months. Cabin availability will undoubtedly not be in full demand during daytime crossings, or at least not in as much demand as for night time crossings. This should decrease cleaning responsibilities and perhaps some staffing, resulting in some slight saving to the operator.

The Commission is satisfied that, generally speaking, the staff and crews on the Gulf crossing are

friendly and courteous, but notes that considerable variation in the provision of basic customer services does occur. Therefore, some fundamental improvement in the provision of basic training, including first aid training appears to be needed. The Commission is also concerned with the level and quality of supervision which is provided. Efforts should be made to insure that inadequate service on the part of any staff member is noted and dealt with in an appropriate manner. As well, the Commission will be further studying and recommending in detail on the implementation of a tourist-orientated information service on the Gulf crossing. Concomitant with this is the necessity to ensure that the crew members are fully trained in passenger relations and are oriented to treat all passengers as tourists, regardless of origin or destination.

The Commission is of the strong view that terminal facilities at Port aux Basques and to a lesser degree at North Sydney, must be immediately upgraded and improved to provide a proper setting for passengers entering or leaving the Province. The existing facilities are dull and uncomfortable, and in some cases dingy, and can do little to encourage tourism and to promote a sense of enjoyment among passengers. The Commission recommends the immediate expenditure of sufficient funds to upgrade terminal facilities to provide bright and cheerful rest and eating facilities, adequate lawn and garden areas for children and families waiting to board the ferry, proper policing to ensure that facilities are not vandalized or abused, and generally an emphasis by the operator on the provision of pleasant surroundings. It will be argued that this does not fit in with the Commission's acceptance of the Gulf crossing as primarily a road link. Nevertheless, the Commission believes that certain minimum levels must be achieved when it is realized that, while it is desirable from a cost point of view to treat the crossing as a road, nevertheless there are delays and other factors inherent in a water crossing. Indeed, one of these factors is the novelty of a water crossing to many people and to others, the fear and unease surrounding water travel. Therefore, expenditures on pleasant terminal facilities is, in the Commission's opinion, justified.

The Commission believes that a full reservation system must be implemented in all CN stations and centres in Newfoundland and on the mainland, in order to encourage advance booking and to promote the service as much as possible. A boarding pass method of seat allocation should also be established to ensure that all passengers will have a seat assigned to them, as for airline travel, which should avoid the rush and scramble to acquire seats, and as well avoid the discomfort, inconvenience and ill feeling occasioned by certain passengers taking advantage of

vacant seats to spread out their possessions and their persons.

The Commission will undertake a feasibility study of implementation of a summer crossing by ferry at night from North Sydney to Port aux Basques and a continuance along the south coast to the Bay D'Espoir/Terrenceville area, and return. This would provide a night crossing dedicated to passengers which would accommodate those passengers who, for various reasons, require to be able to sleep on the ferry crossing. As well, it should promote tourism in opening up the south coast for a trip by larger vessel, and might include certain additional freight facilities not now available.

3. Gulf Rail

As has been stated elsewhere in this report, it is clear that the Gulf rail operation, with the marine/rail interface at Port aux Basques, is a very large factor in the tremendous cost of the movement of freight between the mainland and Newfoundland. The Commission has investigated the facilities and makes the following recommendations:

Firstly, the Commission believes that while the rail service continues to carry current freight volumes, and those to be expected in the future, this freight will be sufficient to require the operation of one rail car ferry only, operating on a load-and-go basis. A backup vessel will obviously be necessary for peak demand and mechanical problems.

The Commission recommends that every effort be made to direct as much rail traffic as possible through the truck to truck transfer procedure, rather than car to car. Agreements should be sought with other rail lines operating in Canada to allow truck to truck transfer for their equipment.

The Commission also recommends that the railway operation be charged the regular freight rate for the return of empty rail cars on the Gulf service. Regardless of the rationale which may have existed in the past for allowing free return, the splitting of CN into separate corporations and the absolute necessity of developing sufficient statistical information to be able to keep a record on actual costs of the various services, makes it imperative that all proper charges should be made between interrelated companies.

4. Rates and Fares

The Commission has left, until this point, the recommendations relating to Gulf rates and fares. It is recognized that rate making is a complicated procedure and that there are many factors which would themselves justify the establishment of a separate commission simply to report on this aspect. Nevertheless, the Commission is not satisfied that in the past a full rationale has been worked out and developed on which rates and fares have been based and revised.

Indeed, it is clear that upward rate revisions have been retarded for various factors, including political. In the operation of an efficient transportation system, and one which will ultimately be able to serve the Province in the best fashion, rates must, in fact, follow a logical pattern.

In keeping with its analysis of the Gulf crossing as ninety miles of road, the Commission recommends that rates for passenger vehicles together with complement of passengers for simple crossing space, should be based on the equivalent full costs of driving ninety miles of road. The additional cost of cabins, foods and entertainment should be charged on a cost basis or, where such would be prohibitive, then on some basis which will promote an acceptable rate of return.

As far as the Argentinia service for passengers is concerned, once the above recommendation for the Gulf crossing is implemented, it should be fairly easy to compute the actual subsidy required to transport a vehicle and passengers on that crossing. The Commission would recommend that this same dollar subsidy could be applied to the Argentinia service, with the rate to the user making up the difference between the subsidy and the actual cost of transport. It is, however, recognized that because of the nature of the vessels now used, implementation of this rate structure for the Argentinia service may have to be postponed until replacement vessels especially constructed for this service are provided.

For accommodation and other "extra" expenses, the Commission recommends the establishment of a family plan which would allow members of a family travelling to obtain a reduced rate based on numbers. This would not, of course, apply to the basic transportation charge for the vehicle and its passenger load. In this latter connection, the Commission recommends that an advance reservation system be implemented so that the ferry operator would obtain in advance an indication of the number of passengers travelling in the vehicle in order that planning could be made for accommodation. Additional passengers arriving in the vehicle over and above those previously notified to the carrier would be charged on a separate basis.

With regard to freight rates, the Commission again believes that truckers should be charged a rate based on the equivalent cost of operating on ninety miles of road. Similar subsidy mechanisms could be applied to the Argentinia run as for the passenger service above specified.

The Commission further recommends that all rates should be reviewed on a regular, accepted basis to take into account increasing costs.

With regard to foot passengers and those not travelling with vehicles, the Commission feels that there is a good rationale for treating these individuals for rate

purposes as if they were bus passengers. The Commission believes that passengers not obviously travelling other than by bus (that is, passengers who arrive on foot, or by bus), should be given the benefit of being treated as bus passengers on an equivalent road journey. The rate should therefore be computed as for a bus passenger rate for the equivalent distance.

5. General Recommendations

Before leaving the analysis of the Gulf services, there are certain general recommendations which the Commission will make relating to the Gulf service generally.

Because of the short peak period, requiring maximum vessel capacity which is then not required for the rest of the year, and because of the relatively short operational life of the ferries, the Commission recommends full investigation of the advantages and disadvantages of chartering all Gulf vessels, as opposed to having some of these vessels owned by the operator. Linked with this is the investigation of the feasibility of use of surplus capacity in the off season through sub-charters (or if owned, through charters) in the West Indies and elsewhere. It appears that from examination of practices in other countries, much use is made of this mechanism in order to provide year round activity for vessels. In any rationalized transportation system, therefore, the Commission feels that year round use will have to be an important part of vessel planning in order to allow proper cost allocation.

The Commission is also aware of the establishment of the Canadian National Marine Corporation which will, on a contract basis with the Federal Government, provide the operation of the Gulf service. It is absolutely essential that the Province have input into the standards of service to be set by the Federal Government and on which the contract will be based. The Commission is concerned that because of its past expertise in operating the service, the specifications for the service will be written by CN rather than by the Government. It is also essential to ensure that a mechanism be developed to allow, in addition, an overseeing of the levels of service actually provided. One further concern relates to the takeover of CN and government owned facilities by the Corporation. The Commission recommends that steps be taken by the Federal Government to ensure that, where such facilities are currently made available to other operators, either on a paying or free basis, and where future requirements dictate that Corporation facilities be shared for private use, such use is permitted by Canadian National Marine Corporation. While it is yet too early to determine the effect of the establishment of the Corporation on operational procedures on the Gulf, and while the Commission

endorses generally the concept of the establishment of the Canadian National Marine Corporation, the Commission does have some concern that unintentional detriment may flow from this mechanism unless sufficient safeguards are established as recommended.

In Chapter XII, the Commission has commented on the exciting possibilities for the establishment of Hovercraft services on the Gulf and to a lesser degree on the coasts of Newfoundland. The Commission reiterates its intention to implement a further study in this regard.

The Commission is aware of the increasing concern of passengers, shippers, and the Gulf operators as to the carriage of dangerous goods in vehicles. With the increasing volume carried, it is clear that on every crossing, substantial quantities of gasoline, flammable liquids, propane, oxygen, and other chemicals are being carried. In its section on recommendations for the highway mode, the Commission has recommended immediate implementation of the regulations currently being finalized to control the carriage of dangerous goods and to require their proper identification.

The Commission recognizes, however, that there is a further problem with the carriage of such goods on Gulf ferries, especially as related to chemicals used in the refrigeration process of tractor trailer units. It may be essential that certain chemical and gases be kept circulating to provide refrigeration. However, the Commission recommends that if this is the case, efforts be made by the carrier in conjunction with the trucking associations to arrive at methods of properly venting areas used for truck traffic on ferries, or to provide internal hookup arrangements to allow for the disconnecting and shutting down of vehicle-carried propane and other units. The same principles would, of course, also be applied to domestic travel trailers and other vehicles using chemicals and gases.

A final point concerning safety on the Gulf relates to the water tight doors on Gulf ferries. The Commission is aware that in recent years two CN ferries have been lost in operation, and the evidence in each case indicates that one of the contributing factors may have been failure or delay in closing the water tight doors. The Commission is aware that the design of vessels includes the division of the vessel into compartments separated by bulkheads with water tight doors. The entire purpose of having bulkheads and doors is to minimize the risk of loss. The Commission feels that the operator should take every step to ensure that all regulations are followed, and that where it is possible to interpret the regulations in more than one way, that interpretation be favoured which promotes passenger safety over and above operational efficiency and ease.

6. Summary of Recommendations

75. That for peak periods of travel, the Gulf ferry service be operated on a dedicated day-time passenger, and night-time truck freight basis, with facilities for unused space to be allocated to the secondary traffic on a first-come-first-served basis.

76. That every effort be made to reduce turn around times during peak traffic periods.

77. That truck freight loadings be on a first-come-first-served basis except for cases of obvious emergency.

78. That efforts be made to encourage a truck trailer-only facility for the Gulf crossing, and that the ferry operator should accept responsibility for direct loss and damage caused by its loading of truck trailers.

79. That for a one year trial period, a year round service for truck freight and passengers be implemented on the North Sydney-Argentia service, with twice-weekly service in the off-season.

80. That, in principle, the Gulf crossing should be treated as the equivalent of a road crossing, with rates for basic travel charged accordingly, and extra services provided on a user-pay basis where possible, and that this principle be applied to the Argentia service when feasible.

81. That a continued program of Gulf crew and staff training, including first aid services, be implemented, and that a high level of supervision be maintained.

82. That terminal facilities for passengers at North Sydney and Port aux Basques be immediately upgraded to provide pleasant surroundings and adequate restaurant facilities.

83. That a full reservation system for the Gulf operation be implemented in all major Newfoundland and mainland centres through existing CN reservation facilities.

84. That a program of seat allocation on the Gulf ferries be implemented by the provision of boarding passes.

85. That a feasibility study be conducted into the establishment of a North Sydney-Port aux Basques-south coast ferry run for peak summer traffic.

86. That as freight volumes dictate, one rail car ferry be operated on a load and go basis on the Gulf, with a backup vessel available as required.

87. That maximum use of truck to truck transfer facilities be made, and agreements with all railways be obtained to permit such a transfer.

88. That empty rail cars crossing the Gulf be charged a vehicle rate on a similar basis to other commercial vehicles.

89. That all rates be reviewed and revised on a regular basis, taking into account increased costs and other usual rate-making factors.

90. That vehicle rates would include driver and all other car occupants for whom a previous reservation had been made.

91. That advance reservations be required for vehicles and their passengers, with extra passengers without reservations being charged separately.

92. That foot and bus passengers be charged a rate equivalent to the charge for a 90-mile bus trip on the Island.

93. That investigation be made into the desirability of chartering all Gulf vessels, together with utilization of surplus vessel capacity on other routes in the off season.

94. That the Province have input into setting and monitoring contract requirements for the Gulf service operated by the CN Marine Corporation.

95. That where facilities, which are to be transferred to Canadian National Marine Corporation are currently made available to other operators, either on a paid or free basis, such facilities will continue to be made available for private sharing and Canadian National Marine Corporation will permit such use to continue.

96. That regulations concerning carriage of dangerous goods be implemented and that CN and truck operators co-operate to develop methods of minimizing risk from the use of chemicals and gases for temperature control purposes during the crossing.

97. That regulations concerning use of water tight doors be strictly enforced.

Direct Water Shipping Services

The Commission has concluded elsewhere in this report that encouragement of direct water shipping to Newfoundland is the means by which the most cost efficiency can be brought to the Newfoundland transportation network. The Commission believes that much of the natural growth in freight volumes into this Province during the next ten to fifteen years will gravitate toward direct water transport because of the efficiencies of that method. In addition, the Commission has recommended that should the railway be abandoned, conscious effort should be made to direct as much traffic as possible from the railway to water transport.

The fact that the direct water mode will play such an important role in the future transportation network in Newfoundland leads to several conclusions and recommendations concerning this mode.

It is clear that facilities must be, and must continue to be, adequate to handle the increasing volumes of freight expected to arrive in this Province by water. It is likely that the ports of St. John's and Corner Brook will continue to be the major ports of entry for incoming freight, since they constitute the ports closest to the major centres of population and distribution. As well, these ports already have fairly well developed

facilities for handling substantial volumes of direct water traffic and it makes sense to encourage further development of these facilities rather than to construct duplicate facilities elsewhere. The Commission envisages that Port aux Basques will continue to be the major entry point for water borne passenger and truck traffic and, of course, for rail traffic, until such time as the railway is discontinued.

The Port of Corner Brook has been the subject of a recent feasibility study concerning necessary and desired expansion. The Commission supports the general principle of expansion of the Port of Corner Brook and encourages government to examine carefully the feasibility studies already conducted for this purpose. In the meanwhile it seems apparent that additional land space will be required for cargo handling and storage if the port is to be viable, and the Commission feels that a landfill programme in the Humbermouth area is desirable.

It is envisaged that once the railway is discontinued, all or practically all, of the outgoing product from the Bowater newsprint mill will travel by water carrier from the Port of Corner Brook. In order to facilitate this, and to provide for a continuous flow of incoming traffic to the port, which will likely serve as the major distribution centre on the west coast, the Commission recommends that all necessary steps be now implemented to ensure that adequate icebreaking capacity is available to keep the port open during all but the most severe and unexpected ice conditions.

During the course of its hearings, representations were made from interested groups in the Corner Brook area that a rail and possibly truck ferry should operate between the Canadian mainland and Corner Brook. However, the Fenco Study for Harbour Development in Corner Brook indicated that the overall benefits of such a system would be marginal at best. The Commission is of the opinion that this will continue to be so under present and anticipated volumes, even with the discontinuance of the Newfoundland railway. As far as outgoing freight, particularly newsprint, is concerned, the Commission believes that the feasibility of loading the newsprint into containers or ocean going vessels for trans-shipment at Nova Scotian or United States ports should be investigated. The Commission intends to further investigate the possible alternatives for paper movement, including the one just referred to and the use of a rail ferry which would also serve to carry incoming freight to Corner Brook for distribution to western Newfoundland.

The Commission has also considered the fact that with increasing volumes of freight, and once the railway is discontinued, the area of central Newfoundland will require a new mode of transport. It appears that considerable volumes of freight for central Newfoundland are now brought by rail, and once this is discon-

tinued it would appear that a direct water shipment service to that area would be desirable. In this connection, the Commission will study the use of the Bay D'Espoir area as a direct terminus, to service the central area, *via* the highway from St. Alban's to Grand Falls. Bay D'Espoir would appear to have an advantage over the north coast ports in that it is relatively ice free year round and would require few icebreaking services. Travel times from the Montreal and Toronto markets would appear to be about equivalent for the Bay D'Espoir and north coast ports. As well, implementation of such a service to the Bay D'Espoir area would do much to encourage the economy of that portion of the Province. Also, from the information which the Commission has, it would appear that to develop the Bay D'Espoir area as a port of entry would not require a large amount of capital investment in wharfing facilities and specialized facilities.

The other major port for consideration is that of St. John's. There are several recommendations which the Commission makes in connection with this port.

Representation has been made to the Commission, and indeed to other government bodies, for the establishment of a synchrolift in the port of St. John's. The Commission considers that the port of St. John's will continue to expand in incoming freight volume and, for this reason alone, the Commission concludes that establishment of a synchrolift is warranted to take care of what may be expected to be increases in ship repairs flowing simply from increased volumes of freight landings. This fact, together with the present existing trial repair services for the Russian fleet, make it fairly obvious that when increases in vessel traffic to St. John's occur, the existing drydock facilities will be fully utilized in servicing medium to large size vessels, leaving no capacity, or only a subsidiary capacity, for the servicing of the Newfoundland coastal vessels and smaller ships. For that reason the establishment of a second facility suited directly to the servicing of smaller vessels would appear essential. The synchrolift appears to meet these capabilities and the capital cost would appear not to be unreasonable. The Commission, therefore, recommends that federal monies be immediately provided for the establishment of a synchrolift to be located in the general vicinity of the existing dockyard facilities operated by CN at the south end of the Harbour.

In making this recommendation the Commission realizes that the establishment of a synchrolift will take up valuable waterfront space which, it is claimed by some, is desperately needed to handle the container and general cargo which now arrives at the port. The Commission has considered these representations, but feels that the establishment of the synchrolift must override these considerations.

Having stated this, the Commission also recognizes that there will be an increasing need for additional waterfront space for storage and berthing facilities. The Commission is aware of existing plans to establish additional space at the northern end of the St. John's Harbour and commends the implementation of this programme. At the same time, the Commission believes that waterfront space in the Harbour area will continue to be at a premium, and that short range and medium range planning should have, as a priority, the development of suitable space in the areas of the major docking facilities.

Relating to this recommendation, the Commission has examined the proposed routing of the harbour access to the arterial road. It appears that the most desirable routing would be to extend the access road parallel to Water Street and have it enter the Harbour area in the vicinity of the Steer's and Hickman properties, rather than in the location now suggested. This mechanism would allow additional space to be made available for freight handling. The Commission recognizes the additional cost involved in the expropriation of property and extension of the road, but feels that the expenditure of these funds, at the present time, is warranted since the additional land will clearly be required within a five to ten year period, and the cost of rerouting the road and acquiring land at such time will certainly exceed, by many times, the current cost.

Concerning the Harbour itself, the Commission believes that with the expansion of the port for the handling of further cargo, additional protection will have to be provided to the port-based fishing fleet currently located at the north end of the harbour. In this connection, the establishment of a breakwater from the northern extremity of the ship channel to the shore in the vicinity of the existing location of the fishing fleet anchorage should be investigated. Such a breakwater would greatly assist the sheltering of small vessels and the shore-based processing of their catch, protecting them as well from the entry and exit of larger vessels.

It is clear that the St. John's Harbour area is, by virtue of waterfront footage alone, constrained in the degree to which it can expand to meet increasing traffic volumes. It is not inconceivable that in the medium range future harbour facilities will, on certain occasions, simply be inadequate to handle incoming freight and vessel servicing traffic. The Commission therefore recommends continuation of the examination of the feasibility of establishing a secondary port to handle overflow traffic from St. John's. The Commission recommends implementation of a feasibility study and positive steps following that, to ensure that an alternate port will be available to handle on a simplified basis, overflow traffic from the port of St. John's. The existing ports of Long Pond, Bay Bulls, and Argentia should be examined in this connection.

Leaving the question of physical facilities for direct water transport, the question of financial assistance to this mode arises. At the present time only one direct water carrier, Newfoundland Steamships Limited, is subsidized. There have recently been established two other carriers, both of which it would appear, could substantially benefit from subsidy availability. These carriers are not now subsidized, although one has made an application for subsidy.

The whole question of subsidy has been examined elsewhere in this report. Suffice it to repeat at this point that the Commission believes in the principle of equal subsidy for common carrier services which, in the public interest, are required to receive assistance in order to make cost to the consumer low enough to create sufficient demand to support the service. The fact that the longest established direct water carrier, Newfoundland Steamships Limited, has required a subsidy since 1969 and, from all available evidence, is likely to continue to do so, leads to the conclusion that if other carriers are to survive for significant periods, they too will also approach the threshold of viability and will require subsidy assistance. While it may be true that by relying on certain specialized types of cargo, smaller operators could survive without subsidy, the Commission believes that general cargo capacity should be encouraged.

The Commission therefore recommends that the principle of equal subsidies be applied to all direct water common carriers into this Province. If it is deemed necessary to support, for example, the Newfoundland Steamships Limited operations with subsidy, then other carriers of similar commodities should also be subsidized.

The Commission sees no reason why public monies should be expended on providing a subsidy to allow one carrier to charge a rate below another subsidized carrier. The Commission recommends that subsidies should be adjusted so that rates can be established equivalent to those offered generally in other modes offering generally equivalent service. This is of particular importance in direct water transport, since it would appear that speed of delivery, reliability of service, and general cargo handling capacity are equal or superior to other modes, for example, rail. Therefore, if tariffs were on a generally equal basis, it would appear that the direct water mode could still survive and be viable, based on its service characteristics alone.

The Commission has examined the provisions of Bill C-6 currently before Parliament, and it is clear that its purpose is to establish more autonomous harbour control, certainly for major ports such as St. John's. At the same time, however, the Commission recognizes that it is also the expressed intention that, where possible, such harbours will operate on a self-

sufficient basis. While it can be argued that this is, in fact, the intent and principle of the current operation of major harbours under the National Harbours Board, nevertheless, the Commission is concerned lest the implementation of the proposals in Bill C-6 have the effect of cutting off harbours such as St. John's from much needed capital investment by the Federal Government, due to the aim that harbours be generally self-supporting. The Commission therefore recommends that in establishing the port authorities under the legislation, every effort be made to ensure that federal monies will be available for assistance for major capital projects which could not reasonably be expected to be financed from port revenues.

In connection with the question of representation on the port authorities, the Commission is aware that under the principles espoused in Bill C-6 it is intended that the harbour and port authorities would have greater liaison and working relationships with the surrounding municipal authorities, in order to, hopefully, provide for planned development, availability of land and land use control to ensure that the ports do not smother from continuing encroachment, but rather are given an opportunity to expand as required to service the traffic. The Commission has, in another part of this report, recommended adherence to the principle that direct input from the Provincial Government be encouraged at all levels of advice and policy consideration for transport modes and services into Newfoundland. It would therefore appear desirable that provision be made for adequate representation from the Provincial Government at least on the advisory bodies to be established for major ports under all new legislation. The Commission believes that the use of provincial representation to provide advice and statistical information as to provincial needs, priorities and desires, can only serve to increase the efficiency and effectiveness of the transportation system as a whole. Every mechanism should therefore be adopted whereby such direct provincial input can be obtained. The Commission does not believe that such a process will degenerate into confrontation between federal and provincial authorities, but on the contrary believes that it would, in fact, encourage co-operation on a broader scale between the Province and the Federal Government, and would serve to ensure that port development fits in not only with Federal plans, but also with Provincial.

1. Summary of Recommendations

98. That the principle of equal subsidies for common carriers providing equal direct water service to Newfoundland be implemented by the Federal Government.

99. That subsidies should be at such a level as to prevent deliberate undercutting of rates between one mode of service and another.

100. That federal monies remain available for the construction of essential capital works within ports such as St. John's and Corner Brook, following the implementation of the proposed revisions to Ports Legislation.

101. That in carrying out the provisions of any proposed Ports Legislation, sufficient provision be made for representation from the Provincial and Municipal Government authorities on permanent advisory groups and bodies.

102. That Government should immediately begin implementation of the recommendations of the feasibility study carried out on the port of Corner Brook, and that this implementation include the necessary landfill programme in the Humbermouth area.

103. That adequate icebreaking capacity be continued to permit operation of the port of Corner Brook during all but the most severe ice conditions.

104. That a feasibility study be conducted into the alternate mechanisms for the water transport of paper products from the Bowater's mill in Corner Brook, including the alternative possibilities of the use of containerized vessels and the use of a rail ferry from Nova Scotia to Corner Brook.

105. That a feasibility study be conducted into the possible use of the Bay D'Espoir area as a port of entry for water borne cargo for distribution to central Newfoundland.

106. That the Federal Government immediately provide funds for the construction of a synchrolift in the port of St. John's. The physical location of the synchrolift should be such that it will not interfere with the other activities of the port.

107. That priority should be given in the short and medium range future to the assembly and development of suitable additional land space in the areas of the major docking facilities in the port of St. John's.

108. That the Water Street Access Road to the Harbour Arterial Road be extended to enter the Harbour area in the vicinity of the existing Steer's and Hickman properties rather than in the location now planned, and that federal funds be made available for this acquisition.

109. That in consultation with local fishermen, the Federal Government provide funds for the erection of a breakwater to protect the St. John's fishing fleet within the Harbour.

110. That the Federal Government conduct an immediate feasibility study into the development of an alternate, overflow port for St. John's traffic, and that the existing ports of Long Pond, Bay Bulls and Argentia be considered for this purpose.

Coastal Service

It is recognized that historically, the Coastal Service around the Island of Newfoundland and the coast of Labrador has provided an essential, and, in many cases, the only mode of transport available to people of coastal communities. At the same time, the Commission also recognizes that with the slow but steady expansion of the provincial road network on the Island of Newfoundland, the isolated nature of many coastal communities has been ended. By agreement between governments, this has led to the discontinuance of coastal services to such communities when road links have been established. Such a result was examined and approved by previous commissions which have examined problems relating to Newfoundland transportation. This Commission also believes that the principle is sound and should be followed. It is recognized that discontinuance of Coastal Service can cause hardship to certain residents and merchants, and indeed to the crews of the coastal vessels themselves. However, the Commission believes that a properly implemented plan of phased reduction in coastal services together with a phased increase in highway services can be adopted and so publicized as to provide to residents and business concerns sufficient advance notice to allow the necessary steps to be taken to adapt to the substitution of the road mode.

The Commission therefore recommends that as roads are established to end isolation of coastal communities, existing coastal services to such communities be phased out. The Commission also recommends that such a programme be carried out publicly, with well announced discontinuances. The Commission also endorses the principle of establishment of joint manpower adjustment committees to review the effect of such phase outs on employment levels within the Coastal Service, and to attempt to ameliorate these effects on the employees concerned.

The Commission also recommends that in cases of particular hardship concerning specific commodities, such as fishmeal, which, because of the prevailing coastal rates would suffer a serious competitive disadvantage once road transport is substituted, consideration be given to providing selective assistance by way of subsidized transportation for such commodities. The Commission believes that such subsidization can be fitted into the existing programmes under The Maritime Freight Rates Act and The Atlantic Region Freight Assistance Act, which have been referred to in other sections.

Having made the above recommendations, the Commission is aware that in some areas, particularly on the northern coast of Labrador, and as well on the southwest coast of Newfoundland, it is not likely that road development will take place in the immediate or medium range future. The difficulties of establishing

road links with present technology appear to be too great to warrant immediately the investment required. This being the case, it is clear that alternate modes of transport must continue to be provided in the short and medium range.

In the section dealing with recommendations concerning air services, reference will be made to the implementation of the Labrador Area Master Plan and the development of landing strips, together with the integration of air and marine modes to provide the optimum transport network for residents. Such a plan envisages the continuance, and indeed improvement of Coastal Service in Labrador. The Commission endorses this concept, together with the concept of continued Coastal Service to the southwest coast of the Island.

When the principles previously enunciated are applied to the existing coastal system in Newfoundland, it will be seen that discontinuance of the Coastal Service west to the Burin Peninsula in the short run is necessarily implied. However, there are two or three communities in the Placentia Bay area which, on such discontinuance, will be isolated if no alternative is provided. The Commission therefore recommends the institution of a motor launch service across Placentia Bay, possibly originating at Argentia and running to Marystown, which will service the communities of South East Bight, Monkstown and Petite Forte. The existing coastal services in that area would be discontinued.

Similarly, the discontinuance of Coastal Service northward from Corner Brook would now appear to be justified with the coming of the Northern Peninsula highway, together with the establishment of a much improved ferry service across the Strait of Belle Isle.

On the southwest coast of Newfoundland, the Commission has already recommended the study of the feasibility of an overnight passenger ferry service from North Sydney to Port aux Basques and thence eastward along the south coast. The institution of such a service would provide an additional passenger service to that now provided, and to be continued, by the 'Sprinter' boats operated by CN. The Commission envisages that with the discontinuance of the Coastal Service east of the Burin Peninsula, Terrenceville would become the eastern terminus of the southwest coast Coastal Service. A service operating between Port aux Basques and Terrenceville for passengers and freight should remain in existence until a road link is established eastward from Port aux Basques all the way to the Burin Peninsula.

On the northeast coast of Newfoundland, the Coastal Service has, to a large degree, been replaced by separate ferry services linking isolated communities with the road network. The Commission is aware of discussions between the Federal and Provincial Governments concerning the possible transfer of

operational authority and control over these services from the Federal Government where it now is, to the Provincial Government. It is clear that intra-provincial ferry services are a provincial responsibility under the division of powers in The British North America Act. However, the Commission recognizes the fact that these existing ferry services are, in effect, the remnants of the previously existing Coastal Service which was taken over by the Federal Government under the Terms of Union of Newfoundland with Canada. In these circumstances, it is clear that the Federal Government has an obligation to continue to provide financial assistance to support these ferry services, at least until such time as populations or expanding road links dictate that by any reasonable examination, it can be said that demand has ceased to exist for a marine service to the communities concerned. Only at that point would the Federal Government be justified in discontinuing its assistance.

The Commission is not adverse to the Federal and Provincial Governments agreeing that the transfer of operational control be made to the Province. Indeed, the Commission is inclined to welcome this approach, since it allows the Province more direct control of a purely intra-provincial service, and at the same time should develop expertise within the Provincial Government in marine transportation matters, an area which appears to be lacking.

The one intra-Island ferry service which is partially financed by the Federal Government, and which is not in substitution for a Coastal Service, is the service between Bell Island and Portugal Cove. Nevertheless, the Federal Government has seen fit to subsidize this service and the present agreement continues until 1985. Although the Commission cannot provide a clear rationale for continued federal support, it would not seem unreasonable for such support to be continued on the basis of established practice and precedent.

In any event the service is clearly inadequate. Bell Islanders, since the closing of the mines, have had to seek employment in St. John's and other "mainland" communities. As long as this situation continues, it seems reasonable to expect that adequate provision should be made for convenient travelling to and from the Island for those individuals who work elsewhere. The Commission recommends therefore that the needs for added service which were identified in submissions to the Commission be examined and that the additional runs which are warranted by the above circumstances should be introduced. Additional funds to pay for these runs should be provided by the two levels of government concerned.

The Commission has already referred in this section to the ferry link between the Northern Peninsula and the coast of Labrador and Quebec at Blanc Sablon. While technically this service is an interprovincial ser-

vice, it is also clear that it came about to service the Labrador portion of the Province from the Island. Thus, it has aspects of both an intra- and interprovincial ferry service.

The Commission is of the view that this ferry link constitutes a vital portion of the transportation network in the Province. Indeed, with the coming of the Trans Labrador Highway, it will be vital to ensure that the cross water link remains operative on a year round basis. So long as this link is provided by surface vessels, it is, in the Commission's view, imperative that every step be taken to extend as long as possible the season of operation of such vessels. Thus, when contracts are contemplated for the replacement of the existing service, consideration should be given to the type of vessel, bearing in mind the likely increased traffic with expanded road systems both on the Northern Peninsula and in Labrador, and as well the necessity to have a vessel capable of operating in ice conditions.

The other link between the Island of Newfoundland and the Labrador portion of the Province by water is the existing coastal run from Lewisporte to Goose Bay. The nature of this run has changed dramatically within the past few years. From the Commission's examination, it would appear that the most satisfactory service was provided on the short-lived run of the *'William Carson'*. It is also clear that the service of that vessel from St. John's, Lewisporte, St. Anthony, Cartwright to Goose Bay was, in fact, a very desirable one from the user's point of view. Undoubtedly, additional costs were incurred, and scheduling problems and reservations were complicated by having interim stops. Nevertheless, the Commission recommends the investigation of the re-establishment of such a multi-port service to provide opportunity for commerce and passenger traffic between three centres on the Island and two centres in Labrador.

The Commission is convinced that it is essential to provide a roll on/roll off (ro/ro) service for residents of Labrador to the Island of Newfoundland until a year round highway link exists. Therefore, the vessels to be used on the Labrador service must have capability for passenger vehicles, and as well, in future, for tractor trailer traffic and general freight.

As to the season of operation, following the sinking of the *'William Carson'*, an inquiry was launched into the cause. While the results of this inquiry are not yet known, it has been suggested in the evidence heard at the inquiry itself that ice may have been an important operative factor. Therefore it is clear that maximization of the operating season must be balanced with safety. It will become necessary, in the Commission's view, to provide a specially designed and built vessel for this service which will have ice capacity sufficient to permit a completely safe operation during the

current season and possibly even to allow extension of the season.

Once the Trans Labrador Highway is completed, and a permanent link established between that road system and the Island, the necessity for a ro/ro vessel from the eastern portion of the Island to Labrador will be lessened and it may well be that such a service can then be terminated.

With regard to the Coastal Service along the Labrador coast, the Commission recommends that immediate action be taken to implement a plan for the rationalization of such service and integration of the service with the airstrip building programme underway. Such rationalization would appear at the very least to require, and the Commission so recommends, the separation of passenger and freight services and the provision of fast links by water from isolated summer communities to permanent settlements having airstrip service, so as to provide a passenger network from the summer communities to centres in Labrador and Newfoundland. Retention of the more traditional coastal boat service for small numbers of passengers is desirable. The Commission believes that the slight additional cost of the retention of some traditional passenger services is warranted in that it would provide to northern Labrador communities a passenger service by water as well as by air, thus providing a choice of modes and a backup in case of emergency or weather difficulties with one mode.

The Commission also recommends that agents of the coastal service operator be placed in the smaller communities, linked by radio communication with the despatching areas or vessels themselves.

It is evident that the existing coastal freight service is less than satisfactory to the shipper and consignee in practically every aspect, other than rates. High rates of loss and damage are experienced. Allegations have been made before the Commission that the cause of this ranges from inadequate vessels to inadequate wharfing facilities to improper handling by shore and vessel crews. Regardless of the reason, it is clear that a high incidence of loss and damage, with concurrent high costs, exists.

If the Coastal Service is to continue, as the Commission recommends, in the short and medium future for communities which have no other mode of transport available for freight, then the service must be a good one. Surely the aim must be to provide the most efficient service from the point of view of satisfaction to the user, combining such efficiency with minimum cost, both to the user and to the general public.

It is the Commission's recommendation that the coastal operator, Canadian National Marine Corporation, now implement a five year plan for the rationalization of coastal freight services. Such a plan would obviously include some advisory capacity for residents and business people now using the service,

together with advice from Federal and Provincial Government officials and marine specialists. Areas of examination should include the establishment of optimum vessel types and sizes, together with the promulgation of requirements for charter renewals to ensure that vessels being brought into the service have the capability to handle freight in the modern sense including, where feasible, palletized and shrink-wrapped cargo, small containers, etc.

At the same time, examination must be made of shore facilities. While it may be true that in the larger communities serviced by coastal boat, shore facilities are adequate, it is also true that in some of the smaller communities they are woefully inadequate. Some solution must be found to the problem of delivery of cargo by coastal vessel to small wharves. The carrier must be provided with a receipt signifying the end of the carrier's liability and the receipt of goods in proper order, or with damage as noted. Arrangements must be provided for at least minimum protection from the elements, together with facilities for temperature control in areas where substantial shipments of cargo of that nature may be anticipated.

In addition to the implementation of a programme to upgrade coastal services, the Commission has considered the question of owned *versus* chartered vessels. It is evident that one of the reasons for the tremendous cost of the Coastal Service is the relatively short shipping season on the Labrador coast, combined with the use of a substantial number of CN owned vessels which are not fully utilized in the off or down season, but for which costs for maintenance and crew continue practically year round. It would appear essential to rationalize this process as much as possible, and consideration must be given to the implementation on a phased basis of a fully chartered vessel service for the Labrador coast. The Commission is not convinced by the arguments presented during the public hearings that the chartered vessel service operated by CN is inferior in quality to that provided by CN's own vessels. In any event, with proper contracting and chartering procedures, standards of service can be protected on a chartering basis to a level at least as good as that provided by CN itself through its own vessels.

The suggestion and recommendation that chartering be expanded for a portion of the Coastal Service, when combined with the development of a master plan for implementation of improved cargo handling and vessel construction shows that, in order to continue to obtain a portion of the CN business, the operators of Newfoundland vessels must be prepared to make the necessary investments to bring their vessels in line with standards which will be set by the CN Marine Corporation. In this connection it is obviously important that as much lead time as possible be given by CN Marine to allow the operators to make

arrangements for modifications to, or replacement of, obsolete vessels and to arrange the necessary financing in order that the vessels may be available when required. Failure of the Newfoundland ship owners to respond to this will, of necessity, require that CN Marine provide the vessels.

The final point in connection with the Coastal Service concerns user rates. For reasons which have not been satisfactorily explained to the Commission, or to our knowledge, to anyone else, in general the coastal rates charged for the service now are the same as they were almost forty years ago. Such a condition is in this day and age incredible. Simple factors of inflation dictate the necessity for regularly reviewed increases in rates. At the same time, the service is, as pointed out above, in many respects woefully inadequate. It would therefore appear to be unjust to recommend immediate, substantial upward revision in rates unless and until guarantees and protections are obtained to ensure that substantially improved services will be implemented. This being the case, the Commission recommends that the principle of rationalization of the coastal boat rate structure be implemented, but only at such time as a phased program of improvements in standards and service is also implemented.

1. Summary of Recommendations

111. That the principle of discontinuance of coastal services to communities served by road be continued. Such discontinuance should be carried out following sufficient advance notice and planning to ensure minimum disruption.

112. That particular commodities which would be adversely affected, to a substantial degree, by the discontinuance of coastal services be considered for selective subsidies under existing legislation in order to minimize difficulties caused by the transition from coastal services to road transport.

113. That the existing coastal service in the Placentia Bay area to the Burin Peninsula be discontinued, with the substitution of a regular launch service linking the communities of South East Bight, Monkstown and Petite Forte to Argentia and Marystown.

114. That adequate wharf and landing facilities be provided for all of the Placentia Bay communities at present served by the coastal boat. These facilities are to be maintained until such time as the communities are connected by road to the main transportation system.

115. That the coastal service north from Corner Brook be discontinued.

116. That with the discontinuance of the coastal service east of the Burin Peninsula, the community of Terrenceville become the eastern terminus for the south coast coastal services, including any ferry

service through Port aux Basques from North Sydney.

117. That the transfer of operational control of the existing intra-provincial ferry services from the Federal to the Provincial Government be encouraged, with the Federal Government continuing to provide financial support for the operations of these services.

118. That additional runs be provided on the Bell Island ferry service to meet the needs of those individuals who travel to and from the Island. The funds for such additional runs should be provided jointly by the Federal and Provincial Governments on the same cost sharing basis as that which now exists.

119. That the Strait of Belle Isle ferry and the coastal service from the Island of Newfoundland to the coast of Labrador and Goose Bay be operated so as to maximize the season of service, and that vessels with sufficient ice strength to allow maximum operations with all reasonable safety be procured.

120. That the coastal service from the north east and east coasts of the Island of Newfoundland to Goose Bay be re-established with a vessel capable of accommodating ro/ro traffic, and that the route include stops at Lewisporte, Cartwright, and Goose Bay. The feasibility of including stops at St. Anthony and St. John's on the run should be investigated.

121. That for passenger services on the coast of Labrador, a plan be immediately implemented for the rationalization of coastal services with the airstrip construction programme underway. Such coastal services would include in the south, the use of fast launches to link isolated or summer communities with permanent settlements having airstrip connections with the rest of Labrador, together with the provision of the traditional coastal boat passenger service to serve the southern areas and as well the northern communities on the coast.

122. That agents of the coastal service operator be stationed in smaller communities in Labrador and placed in radio contact with vessels or despatching services.

123. That the coastal service operator commence immediately the development and implementation of a five year plan for rationalization of coastal freight services in Labrador and Newfoundland. Development of such a plan should have input from residents and users of the Coastal Service together with government representation and marine specialists. Plans should include improvement of vessel types and shore facilities to provide for more efficient handling of modern cargo types and packaging.

124. That consideration be given to providing, on a phased basis, freight services by chartered vessel,

in order to achieve economies not now existing with the mixed type of service.

125. That owners of Newfoundland coastal vessels take all reasonable steps to ensure that modification of existing vessels, and replacement vessels acquired, will be able to meet the chartering requirements of the coastal service operator.

126. That coastal freight rates be rationalized and placed on a regular review basis, following implementation of a phased programme of coastal service improvements.

Air Services

The Commission feels it is significant that few complaints were made during the public hearings of the Commission concerning the operations of the national and regional air carriers. Surveys and investigations carried out by the Commission support the position that generally speaking, the services provided and rates charged by the national and regional carriers in Newfoundland are generally accepted by the public, and are, on an objective analysis, of good quality and reasonable cost. The Commission notes that more complaints were received concerning the third level air services, both on the Island and in Labrador.

Concerning the national and regional carriers, the Commission is satisfied that generally speaking, rates charged are in line with generally accepted rate-making principles for equivalent distances and services, and the Commission can find no area of major difficulty in connection with such rates.

As regards scheduling, suggestions were made for the establishment of an early morning west/east flight from the Stephenville or Deer Lake area to St. John's. However, following investigation, it appears clear that patronage for such a flight would be insufficient to make the cost of present implementation justifiable. Certainly, the Commission assumes that the regional carrier will continue to monitor this situation and at such time as implementation of such a service can become viable, the Commission is satisfied that it will be actively considered by the carrier.

Representations were also made to the Commission that the regional carrier should be permitted to serve the passenger route from Wabush to Montreal. However, the Commission recognizes that factors also exist militating against such a service. It is recommended, therefore, that the Ministry of Transport and the CTC now undertake an investigation as to the feasibility of such a service and the effect of its implementation on existing carriers.

With regard to liaison with the general public, the Commission finds that the activities of the national and regional carriers are on a general level, most satisfactory, with a high degree of customer satisfaction. The Commission does believe, however, that in the major centres, particularly St. John's, it would be

desirable to implement some mechanism of providing up-to-date and accurate information to persons awaiting arrivals and departures. One mechanism might be the implementation of a televised bulletin service at the airport itself to take the place of counter personnel following the end of the evening shift. Of course, this would be supplementary to, and not in replacement of, the existing recorded telephone services.

Concerning freight services provided by the national and regional carriers, the Commission has investigated the suggestions and complaints made during the public hearings. Again, the Commission's conclusion is that the additional routes and freight services proposed are not yet practical in cost terms. However, particularly in the Corner Brook area, which is served by two airports located at considerable distance from the community, the Commission recommends that carriers take every reasonable step to ensure that air freight is handled in the most expeditious and efficient manner and particularly that consignees have an easily accessible and accurate source of information concerning arrivals and departures of shipments.

As the Commission has indicated in various sections of this report, the Newfoundland fishery constitutes one of the brightest hopes for the prosperity of this Province. The Commission has considered the present lack of fast transport of fish products by air west to Canadian and United States markets. Such a service was implemented by Air Canada in the recent past, but through lack of regular deliveries to the airport collection point, had to be terminated because of unreliability. The Commission deplores this fact and encourages the Provincial and Federal Governments, together with the carrier and fish processors, to explore ways of implementing a regular flow of fish products in such a fashion as to support a regularly scheduled westbound run, both to serve the western markets and also, to allow use of Mirabel Airport facilities tailored to European markets.

With regard to such European service, the Commission wishes to study the possible establishment of an eastbound freighter flight from either Mirabel or Gander which could pick up fresh fish product for shipment to European points. The Commission believes that there is sufficient demand for high quality fresh fish products in the European market to provide full markets for every load carried and the considerable freight costs could be absorbed in the chargeable price. The Commission believes that implementation of such a service would do much to enhance the image of Newfoundland fish products and fish processing in Europe and might indeed provide additional impetus for sales of Newfoundland products by more direct waterbound routes to Europe. The existing terms of reference of the Com-

mission specifically exclude such a study, however, and the Commission can only request that permission be granted for such a study.

Concerning ground facilities at the major air centres, the Commission notes the relative lack of recommendations or requests in this regard from the Gander area. The Commission also notes, however, that the Federal Government has committed itself to substantial expenditure on considerable terminal improvements there.

In St. John's, the Commission notes the availability of extensive instrument landing systems to counter the relatively poor weather factor occasioned at Torbay Airport. The Commission recommends the addition of a Category 1 landing system on Runway 11 at Torbay to increase even further the available landing facilities. Every step which can reasonably be taken and at reasonable cost to service passenger travel by air into the major centre and capital city of the Province is justified in the opinion of the Commission.

Again, in connection with St. John's and Gander airport facilities, representations were received suggesting the establishment of temperature controlled fresh fish product holding areas at these terminals to facilitate outbound shipments. The Commission, however, recognizes the position of the carrier that it should not be responsible for these additional costs. The question of the requirement for such facilities and the cost of their construction should be considered in the study of western and European markets referred to above.

In Labrador, the Commission notes the Federal Government's announced intention to substantially upgrade and expand terminal facilities at Wabush Airport. The Commission endorses this expenditure, since this airport serves the major centre of population in Labrador and provides an essential link with the Island of Newfoundland.

The Commission notes with some concern the very strong representations received from the Labrador West area concerning the necessity of proper air traffic control services at Wabush Airport. From the information available to the Commission, it would appear that the area of concern centres around a relatively high density of traffic during one particular period of each day. This is a very technical area, and the Commission feels that it can only recommend that the Ministry of Transport study the complaints of residents to decide if, in fact, a safety-related problem exists now or is imminent, and to determine what solutions can be found to alleviate the concerns of residents of the area. One possibility would seem to be a slight rescheduling of flights, but again this would have to be analyzed from the operations of carriers currently serving the Wabush area.

The Commission notes the Provincial Government program, now practically completed, for establishment of aircraft landing strips and helicopter pads at isolated areas throughout the Province. With the coming of new or better road links in the vicinity of some of these areas, particularly on the Burin Peninsula, the airstrips in question have fallen almost into complete disuse. The Commission regrets this turn of events and, at the same time, regrets the fact that when such landing strips were in the planning stages, consideration was apparently not given to establishment of such facilities on Fogo Island. Strong representations have been received from residents of Fogo Island and, as well, from the existing air carrier, Gander Aviation, concerning the necessity for some proper landing facilities to be established there to facilitate the essential air lift services provided during the winter months. The Commission notes that the Provincial Government already subsidizes the cost of passenger travel during these periods and recommends that the Federal Government give active consideration to assisting in the establishment of a proper landing strip and necessary facilities to allow safe, year-round operations to and from Fogo Island. The Commission wishes to clarify that it does not lightly make such a recommendation. Consideration has been given to the cost of establishing such a landing strip and, as well, to the claims of other communities in Newfoundland as to the necessity of establishment or upgrading of air facilities. However, the Commission also recognizes that Fogo Island encompasses a population of approximately five thousand persons and is, from all indications, one of the most viable isolated communities in the Province. The Commission feels that monies spent on establishment of at least the minimum in landing facilities on Fogo Island is a reasonable expenditure in these circumstances.

In the preceding recommendations, the Commission has not referred to the situation regarding air travel in Labrador, with the exception of the main centres. This omission has been deliberate, since the Commission believes that the situation regarding air services in the greater part of Labrador, and particularly along the coast, is of such vital importance to the well-being of residents of that area, and to the Province as a whole, that it warrants separation from considerations of other air problems in Newfoundland.

The Commission encourages the immediate implementation by the Federal Government on a priority basis of the Master Plan for air transportation services in Labrador. Linking of such air services with passenger marine services has been referred to in the section of this chapter dealing with coastal services to Labrador. It is clear that a comprehensive system of

passenger services to all coastal communities must be made available and that air services by float and ski equipped aircraft will continue to be an essential part of such a system in the foreseeable future. Adequate docking and passenger shelter facilities must be provided wherever such "bush" services operate. As well, scheduled air services both by wheeled aircraft and by float and ski equipped craft will be essential in the medium range, in order to provide a true network of passenger and freight services able to serve the needs of the coastal communities.

The Commission is satisfied that for whatever reason, in the past coastal Labrador has, to a great degree, been ignored in the development of basic air transportation modes and services both by the Federal and Provincial Governments. There is no doubt that the isolated nature of the communities, the vagaries of the weather and the length and sinuosity of the coastline makes costs unusually high and options unusually restricted. Nevertheless, every effort must be made to more fully integrate Labrador and its residents into the mainstream of life of the Province as a whole. Additional costs caused by the factors of isolation and geography, which are no fault of the people themselves, should not be allowed to justify the shelving of proposals or the failure to implement decisions. Indeed, the Commission believes that as a general principle, it should be accepted that transportation costs for communities in Labrador will be higher than for other areas of the Province or indeed perhaps for other areas of the country as a whole. Both levels of government, therefore, when making decisions concerning transportation services, including air services, must be prepared to accept such higher costs as a necessary incident, and not to restrict the options or services available in order to bring the total cost into line with expenditures in other portions of the Province.

1. Summary of Recommendations

127. That federal authorities investigate a feasibility of permitting Eastern Provincial Airways, the regional carrier, to serve the passenger route from Wabush to Montreal.

128. That in the major air centres, including St. John's, a televised visual information service be provided at the air terminals to provide up-to-date information to persons awaiting arrivals and departures at such times as counter personnel may be off shift.

129. That the national and regional air carriers be encouraged to take every reasonable step to ensure that air freight arriving in Stephenville for delivery to the Corner Brook and surrounding area be handled efficiently and that consignees have easy access to information concerning arrivals and departures of such shipments.

130. That the Provincial and Federal Governments, together with Air Canada and Newfoundland fish processors immediately explore ways of re-establishing a regular flow of fish products in order to support a scheduled westbound air service to Central Canadian and United States markets for fresh fish products.

131. That development of eastbound air services for the carriage of fresh fish products from Newfoundland to European markets be investigated. That the Gander Development Corporation be given every encouragement including financial assistance in furthering its participation in the study of the use of Gander and Mirabel airports as major transshipment airports for the transport of fresh fish.

132. That a Category 1 Landing System be installed on Runway 11 at Torbay Airport to provide maximum landing possibilities in adverse weather conditions.

133. That the Ministry of Transport study the complaints concerning inadequate Air Traffic Control procedures at the Wabush Airport and ensure that all safety requirements are met.

134. That the Federal Government contribute toward the cost of construction of air landing facilities on Fogo Island in order to assist in ending isolation of the residents of that community during winter months when air service for passengers and freight is required.

135. That implementation of the Labrador Area Master Plan for the construction of landing strips at coastal communities be continued on a priority basis by the Federal Government.

136. That the Province and the Federal Government encourage the implementation of a co-ordinated plan between air and marine services on the Labrador coast, both for passenger and freight traffic.

137. That for Labrador transportation it should be accepted by all governments, as a principle, that transportation costs are necessarily higher to provide any given level of service, and that such higher per capita or absolute expenditures are justified in order to provide acceptable levels of service.

138. That the feasibility of delivery of a greater quantity of freight by air to the major Labrador communities be thoroughly investigated.

Section 6

Minority Report of Commissioner E. E. Thoms

Chapter XVII

Minority Report of Esau E. Thoms, Commissioner

Because of my illness, I have unfortunately been unable to participate fully in the main deliberations of the Commissioners in order to formulate the second volume of the report of the Commission. For this reason, my fellow Commissioners have generously agreed that it is now preferable to issue an interim report dealing with those areas which we had been generally able to discuss in some detail prior to my illness.

It is the intention of the Commission to continue to meet over the next months in order to finalize all of the matters set out in the first volume of the report and as well, to reach certain additional conclusions arising from specific studies undertaken by the Commission.

While, obviously, I have not been able to fully discuss certain controversial areas of the first volume of the report with my fellow Commissioners, nevertheless I feel that I must record my disagreement with certain of the principles enunciated by them in this report. It may well be that following presentation of the first volume of the report, and when the Commissioners are able to fully discuss during the next several months all of the details of the report, certain areas of my disagreement may be able to be resolved. Of course, I recognize that this process may also result in finding that there are continuing areas of disagreement which may necessitate a further minority report at the time of presentation of the second volume of the report of the Commission.

I cannot agree with the general premises and conclusions arrived at by the majority of Commissioners in Chapter VIII, dealing with the future of the railway in

Newfoundland, and in the recommendations which are based thereon.

In my view, it is not in the least inevitable that the volume of traffic offering on the Newfoundland railway will decline to a negligible amount within the next ten years. It is my belief that the decline in traffic to this date has, to a large degree, been caused by inefficient equipment and facilities, lack of local authority to deal with particular local problems, and a general lack of dedication to the viability of the railway by the operator itself and, I suppose, to a lesser degree by the employees, both management and union. On this latter point I do not blame the employees for this lack of enthusiasm. When the corporate entity exhibits the will to survive and improve, it is my belief that this will translate itself into actions by all employees.

Since I do not believe in the inevitable end of railway freight traffic in Newfoundland, I can see no basis to conclude that the optimum transportation network will develop without an important place for rail services. Indeed, it is my belief that every reasonable step should be taken to encourage the growth and expansion of the rail service, as I will elaborate subsequently.

Not only is it my belief that through proper management, rail traffic will continue to grow and form an even more important segment of the Newfoundland transportation picture, but it is also my firm conviction that there are several other major reasons for the retention of a rail freight system in Newfoundland.

1. I believe that the conscious abandonment of the remaining portions of the railway network in this Province would place Newfoundland at a disadvantage when compared to every other province of Canada, in which there continues to exist a viable

rail operation. Having already lost our passenger service, I believe that it is wrong for any conscious step to be taken to remove the remaining vestiges of the railway. Surely the citizens of Newfoundland are entitled to a mode of transportation equal to that existing in the other nine provinces and unless and until a general move is made to discontinue rail services across Canada generally, I cannot support the voluntary removal of such a mode in this Province.

2. It is my belief that there is a constitutional obligation on the part of the Federal Government to provide and maintain a rail service in this Province as long as there is any traffic offering for that service. This is the conclusion which has been reached by the other Commissioners, following legal consultation and consideration of the Terms of Union of Newfoundland with Canada. I concur with this conclusion, but I cannot concur with the subsequent decision by the majority of Commissioners to recommend that the constitutional obligation be changed or eliminated, based on certain premises and predictions as to the optimum transportation network. It is my belief that to recommend a change in the constitution is wrong. The people of Newfoundland were guaranteed a continuing rail service in this Province as one of the conditions of their agreeing to join Confederation in 1949. I do not believe that government has the authority to agree to a change in this obligation, regardless of circumstance. It is my position that one of the special conditions for having Newfoundland become part of Canada was that there be a rail service maintained, regardless of the cost. This is an obligation of the Federal Government which is unique to this Province. Therefore, it is a base position, from which all other considerations must be built, and cannot be included as part of the consideration of what the optimum system should be. In other words, given a railway system capable of meeting all traffic offering on it, I feel that this is the "zero" position from which Newfoundland is entitled to start when seeking federal assistance in transportation generally. Newfoundland should start from this position in the same fashion as the other provinces may have started from the position of having no railway services. But that is a fact of life—Newfoundland was constitutionally guaranteed a railway service, which may not be the position in some of the other provinces.

3. In the present economic position of Newfoundland, I cannot agree with any recommendation that would voluntarily throw additional strains on the employment situation. This Province has the worst unemployment picture in Canada and this is likely to continue. Regardless of mechanisms proposed to deal with the adverse effects of the abandon-

ment of the railway, it is an unalterable fact that some three thousand persons depend directly for their livelihood on the continuation of rail freight operations in Newfoundland. Any attempt to discontinue these operations cannot help but cause much distress and misery to many of these persons, even should it be possible to place them in other job positions subsequently. I am not convinced of the effectiveness of co-operative ventures to *completely* remove the adverse effects of unemployment. I, therefore, cannot in conscience support the abandonment of the rail operation, knowing as I do the catastrophic effect it would have on many, many lives and employment opportunities in Newfoundland.

4. It is my belief that the use of fossil based fuels, particularly oil and oil products, will continue to increase in cost within the next few years. Indeed, we may reach a position in which rationing of fuel products will become a necessity from the nation's point of view. This being the case, it is obvious that the least fuel efficient modes of transport will be the hardest hit, and it will become a positive step in the national interest to encourage fuel efficient ones. It is clear that next to direct water shipping, rail transport is the most fuel efficient mode. Any step that would now be taken, therefore, to promote the abandonment of the railway at a point which may be just prior to a mandatory switching in mode priorities imposed by fuel shortages would, in my view, be most unwise and indeed disastrous. Once the railway is abandoned it is simplistic to say that it could be reactivated should the fuel situation dictate. Abandonment will bring with it decay of equipment and plant which will be extremely costly, if not impossible to rectify in the short run. Therefore, since the fuel crisis is upon us, I cannot recommend the abandonment of one of the most fuel efficient modes. Indeed, it is my belief that this mode will become increasingly attractive as fuel costs rise, and this factor alone will promote an increase in traffic offering for the railway which will go far towards making the Newfoundland railway operations more economically viable and more importantly, more economically vital to the population of this Province.

Having said, and justified above, that it is my position that the rail freight system in Newfoundland should be continued and improved in the future, I must state that it is my view that every reasonable step should be taken to improve the capacity of the railway to attract and handle freight. It is my belief that all reasonable steps should be taken to upgrade and improve the roadbed, trackage, and physical facilities of the railway to enable it to provide the speediest and most efficient service possible. While I do not go so far as to recommend the standard

gauging of the railway, nevertheless it is my belief that investigation of the possibility of standard gauging certain portions, say from Corner Brook to Port aux Basques and from Argentia to St. John's, should be investigated from a cost effective point of view to determine whether this expenditure would not, in fact, create a tremendous improvement in rail freight capability to the major points of consumption in the Province. In any event, the railway must absolutely be improved, at whatever cost, to ensure that it is able to effectively meet the traffic offering to the railway, which traffic will, in my estimation, increase in the coming years.

The other Commissioners have recommended the establishment of a Joint Consultative Committee to operate during the period of a possible phase-out of the railway. As mentioned above, I disagree with the principle of abandonment of the railway, but I feel that the work of such co-operative committees can be of great use in seeing what ways may exist to develop co-operation between management and labour, and to improve efficiency and attract traffic to the railway.

In this connection it is my view that a localization of management authority is absolutely essential if this aim is to be achieved. It is my belief that the pattern in the past of decentralization of authority out of Newfoundland and of leaving ultimate decision-making authority on many important points with officials in Moncton and points west, has only served to alienate the workforce with the railway. Furthermore, and worse, it also alienates the general public, who cannot deal with people at the local level who have authority to make decisions. I think that the institution of a local or regional manager for Newfoundland with ultimate authority on all matters of day to day importance is an absolute first step in the revitalization of the railway.

With regard to rates, I believe that it is beyond the scope of this Commission in the relatively short time span allotted to it, to come up with a definitive study on rates. The whole rate making procedure and the effect of rates on traffic and types of commodities is a very complex study. Nevertheless, it is my view that at present in Newfoundland we have certainly less than a first or second class railway service, and I am strongly of the opinion that railway rates must be adjusted to represent the service provided. If my recommendations are adopted and if the railway is upgraded and improves its position, certainly at that point consideration might be given to maintenance or increases in railway rates from the present levels. However, while we continue to enjoy a third class rail service, it is my view that railway rates should be reduced in areas where other modes have a competitive rate advantage, since the railway, by charging equal or higher rates, while at the same time providing a third class service, is being grossly over-compensated. I realize that such a position would increase the operating

deficit of the railway, although I am not convinced that such deficits would not be offset by increased volumes and other efficiencies. Nevertheless, if a deficit has to occur, it is my view that it is the obligation of the Federal Government under the Terms of Union to ultimately pay this deficit, whether by direct subsidy to the rail operator or by requiring the operator to cross-subsidize the service from other revenues.

Finally, with regard to the rail passenger service, I think the Federal Government did a great disservice to the public of Newfoundland in the abandonment of the rail passenger service in this Province in 1969. I am of the strong opinion that it is a great pity that legal action was not taken then to contest the right of the Government, under the Terms of Union, to abandon a substantial portion of the rail service in this Province without the consent, at least, of the general public.

Nevertheless, it is a fact that the service has been abandoned and to a large degree, the railway operations have been changed to take into account the fact that there is no longer a rail passenger service. Passenger rolling stock and related equipment, employees and services, have all been diverted elsewhere and I recognize that it would be a very substantial investment and step to reinstitute a passenger service. Nevertheless, I feel that immediate feasibility studies of the institution of a commuter passenger service should be undertaken. It might, for example, run to St. John's from the Whitbourne area to service the Placentia, St. Mary's Bay area, and also the Conception Bay area. It is my belief that the costs of instituting a fast commuter service would be minimal when compared to the benefits to be offered to a large number of persons now using private automobile or public bus to commute daily to the capital city.

I am also of the opinion that once such a service is established, it may well be that the expertise brought back into the railway operations through the hiring of passenger related employees and the acquiring of passenger related equipment will be such as to make it feasible to institute a regular passenger service across the Island. It would be my recommendation that a study be undertaken to determine the ways and means of developing passenger traffic to support at a reasonable level the institution of such a service. This would, to a large degree, allow the discontinuance of the present CN bus service, which, in my opinion, is completely inadequate as a passenger service and will continue to be so, regardless of the monies expended on the provision of more luxurious and lavish coaches and the like. The fact is that no bus service can provide the seating and overall comfort of a train, together with the dining and rest facilities appropriate to the train mode. It is my view that because of the relatively lengthy distances travelled by the public in Newfoundland, and the high degree of reliance by the

public on publicly operated transport, a rail passenger system is of great importance and every effort should be made to provide for the reinstitution of such a service on an efficient and cost effective basis if possible.

In the preceding paragraphs of this report I have mentioned my main areas of disagreement with the interim conclusions reached by the other Commissioners as they relate to the future of the railway in Newfoundland. I am in general agreement with the analyses on decisions reached and the recommendations made in the balance of this report, except where

such analyses, conclusions or recommendations conflict with the points set out above in this Minority Report. In this connection I should note that the suggestions and recommendations concerning the chartering of vessels for the coastal service seems to me to be unwise and I am in firm disagreement with them. Also, I do not agree with the recommendation that the Coastal Service be discontinued from Corner Brook to Labrador. I shall note any other specific disagreements as necessary in comments attached to Volume II.

The Commission

Commissioners

| | |
|---------------------------|--------------------|
| Arthur M. Sullivan, Ph.D. | Chief Commissioner |
| J. Burford Ploughman | Commissioner |
| Esau E. Thoms | Commissioner |

Counsel

H. James Puddester, B.A., L.L.B.

Administration

| | |
|-------------------------|--------------------------|
| Ada O'Reilly | Administrative Officer |
| Barry Mills, B.Comm. | Administrative Assistant |
| Sally LeMessurier, B.A. | Special Assistant |
| Fred Anderson | Special Assistant |
| Elizabeth Hammond | Receptionist-Secretary |

Research

Mervin G. Andrews, P.Eng., Director
Barry Butt, B.A.
Donald Driscoll, P.Eng.
Japhet Oguine

Research Consultants

C. Karasek & Associates
Development Planning Associates
Omnifacts Ltd.
Leo Barry, L.L.M.
Andrew Crichton, P.Eng.

Technical Consultant

Capt. Thomas Goodyear

Editorial Consultants

Leslie Harris, Ph.D.
Susan Sherk, B.A.

Accountant

A. C. Lloyd Hudson

Information Officers

Elizabeth Heneghan, B.A.
Robert Knight

Glossary

Rail

Break Bulk:

The breakdown of a large shipment into smaller shipments for trans shipment

Carload:

A full rail car of freight

Express:

Small parcel service, providing transportation and (in large urban areas) pickup and delivery service

LCL:

Less than carload freight

Narrow Gauge:

A gauge of less than standard (standard is 4 feet 8½ inches between the rails). The Newfoundland lines are 3 foot 6 inch gauge lines

Piggyback:

The carrying of truck trailer units on railway flatcars

Reefer:

A refrigerated rail car

Standard Gauge:

Railway lines having a gauge of 4 feet 8½ inches between the rails

Tri-level Rail Carrier:

Rail car which accommodates three levels of automobiles vertically

Truck to Truck:

Exchanging the trucks under a railway car with another set of trucks, to accommodate gauge changes

Turnout:

A switch on a rail line

70,85,100# Rail:

The weight of a rail expressed in pounds per yard of rail

Road

Arterial Road:

Road intended to move large volumes of traffic at high speeds and connecting major economic regions and centres of a province

At-Grade Crossing:

The area where two or more roads join or cross or where a road and railway cross

Collector Road:

Road which collects traffic from local roads and feeds it to arterial roads and has a land service function of equal importance to the traffic service function

Edge Line:

A painted line on the right or left edge of a lane or highway (right on two or three lane highways)

Grade Separation:

A crossing at different levels of two roads, or a road and a railway

Half Load Limit:

A vehicle weight limit on roads allowing one half of the maximum payload to be carried (applies to trucks only)

Local Road:

Road which main function is to provide access to properties adjacent to the road

Passing Sight Distance:

The length of roadway available for passing and visible to the driver of a passenger vehicle at any point on the roadway when the view is unobstructed by traffic

RAU 60:

A designation for Rural Arterial Undivided highway with a design speed of 60 (miles per hour or equivalent kilometers per hour)

Seal Coat:

A single application of asphalt binder, followed by a single application of cover aggregate, both placed on an existing bituminous surface

Service Volume:

The maximum number of vehicles that can pass over a given section of a lane or roadway during a specified time period while operating conditions correspond to a specified level of service

Surface Treatment:

The application of asphalt binder and cover aggregate, in various combinations, on a prepared gravel or crushed stone base

Tote Road:

A temporary road used for transporting construction materials to the construction site

Weight Scale:

A site on a roadway that is used to measure the weights of trucks through the use of scales

Marine

Auto Equivalent:

The space on a ferry consumed by one automobile (average length of 20 feet). Ferry vehicle capacity is usually expressed in terms of x auto equivalents, e.g., 'Marine Nautica' and 'Marine Atlantica' can carry 290 auto equivalents each.

Fast Turn-Around:

A means of increasing the number of trips of a vessel by decreasing the time spent in travel and in port, e.g., reducing a Gulf ferry's time in port from a normal six hours to about two hours

Graving Dock:

A drydock used for repairing ships

Ro/Ro Vessel:

A roll on/roll off vessel where highway or rail vehicles are driven into or off the vessel on their own wheels

Side Loader:

A vessel in which cargo is loaded through doors in the vessel's side, rather than end or top loading

Synchrolift:

A lifting device used to assist in repairing vessels by lifting the vessel completely out of water instead of putting the vessel in a drydock

Air

Aerodrome:

Any area of land, water or other supporting surface designed, prepared, equipped or set apart for use either in whole or in part for the arrival or departure of aircraft

Belly:

The section of an airplane immediately below the passenger compartment and used generally to carry cargo

Class 3 License:

Specific Point commercial air service operated wholly within Canada serving points consistent with traffic requirements

Class 4 License:

Charter commercial air service operated wholly within Canada that offers public transportation on reasonable demand (includes recreational flying)

Class 6 License:

Flying club commercial air service

Class 7RF License:

Specialty commercial air service for recreational flying, i.e., sightseeing, barnstorming and parachute jumping

Class 9-3 License:

International Specific Point commercial air service operated, between points in Canada and points in any other country consistent with traffic requirements

Class 9-4 License:

International Charter commercial air service operated between places in Canada and places in any other country

Convertible Freighter:

A freight aircraft which can be converted partially to carry passengers in seats

National Primary Airport:

A Ministry owned and operated designated international or international alternate airport and other Ministry owned airports which serve population centres of over 40,000

National Secondary Airport:

An airport of predominantly national interest with an Air Traffic Demand Index over 400 operated either by the Ministry or a Municipality or other designated body

Regional Airport:

Airport of predominantly local interest with an Air Traffic Demand Index of less than 400

STOL:

Short take-off and landing

Bus

Feeder:

A bus service which feeds traffic to and from the main bus services

Passholder:

A passenger who holds a pass for free or reduced rate travel

Revenue Passenger:

A passenger who pays directly for his passage

General

Back Haul:

Freight carried on the return portion of a round trip

Cross Subsidization:

Subsidization of a service operating at a deficit by a service operating at a profit, both operated by the same company

Cunit:

1.18 cords of wood

Degree of Curvature:

The angle measured in degrees at the centre of a simple circular curve subtended by an arc of 100 feet

Easement Spiral:

A curve of which the radius gradually changes and is used between a tangent and a circular curve to ease the centrifugal force on a vehicle from zero on the tangent to full force on the circular curve

Grade:

The rate of rise or fall with respect to the horizontal, e.g., a 6 foot rise or drop in 100 feet horizontal is a 6 percent grade

Interface:

A connection between two different modes of transport such as rail/ship or rail/truck

Interline:

A car movement which originated or terminated on a railway other than one under discussion

Payload:

The maximum weight of cargo that can be carried by a vehicle, vessel or aircraft

Shrink-wrap:

A plastic film wrap for sealing cargo shipments

Traffic Zone:

A designated area of land based on characteristics of population, geography, etc., and used for origin-destination studies

